# SPECTRUM MATHEMATICS SERIES

Orange Book

# SPECTRUM MATHEMATICS — Orange Book

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#### CONTENTS

	Pages		Pages
Addition and Subtraction (1 digit thru 2 digit; no renaming)	1-11	Temperature, Money, and Roman Numerals	72-81
Addition and Subtraction (2 digit and 3 digit; renaming)	12-25	Division (basic facts)  Division	82-91
Addition and Subtraction (3 digit thru 5 digit)	26-35	(2- and 3-digit dividends)  Division	92-105
Multiplication		(4- and 5-digit dividends)	106-115
(3 digit by 1 digit)	36-47	Multiplication and Division	
Multiplication		(checking)	116-127
(2 digit by 2 digit thru 3 digit by 2 digit)	48-59	Measurement (weight, time, linear,	
Multiplication	10 00	capacity; perimeter)	128-139
(4 digit by 1 digit; 4 digit		Review	140-152
by 2 digit; 3 digit by 3 digit)	60-71	Answers	

THIS BOOK IS TO STATE PROVINCE COUNTY PARISH SCHOOL DISTRICT OTHER		Book No. Enter inform in spaces to the left instructed	rmation
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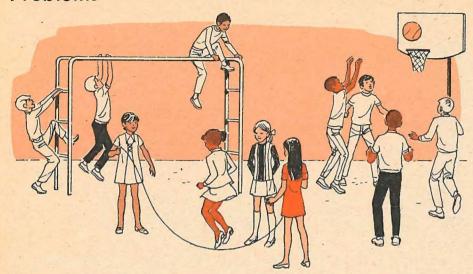
Toronto, Canada

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<sup>1.</sup> Teachers should see that the pupil's name is clearly written in ink in the spaces above in

every book issued.

2. The following terms should be used in recording the condition of the book: New; Good; Fair; Paor; Bad; Unusable.



There are \_\_\_\_\_ girls at the playground.

There are \_\_\_\_\_ boys at the playground.

There are \_\_\_\_\_ children at the playground.

Solve each problem.

1. How many children are playing basketball or playing on the monkey bar?

\_\_\_\_\_children are playing basketball.

\_\_\_\_ children are playing on the monkey bar.

\_\_\_\_ children are playing basketball or on the monkey bar.

2. Manny made 4 baskets. Jake made 5 baskets. How many baskets did the two boys make?

Manny made \_\_\_\_\_ baskets.

Jake made \_\_\_\_\_ baskets.

The two boys made \_\_\_\_\_ baskets.

3. Lisa lives 2 blocks west of the playground. Joan lives 3 blocks west of Lisa. How far does Joan live from the playground?

Lisa lives \_\_\_\_\_ blocks west of the playground.

Joan lives \_\_\_\_\_ blocks west of Lisa.

Joan lives \_\_\_\_ blocks from the playground.

Check your answers. Record your score.

J.

Perfect score: 9 My score: \_\_\_\_

#### Addition

+	0	1	. 2	3	4	5	6	7	8	9
0	0	1	2	3	4	5	6	7	8	9
1	1	2	3	4	5	6	7	8	9	10
2	2	3	4	5	6	7	8	9	10	11
3	3	4	5	6	7	8	9	10	11	12
4	4	5	6	7	8	9	10	11	12	13
5	5	6	7	8	9	10	11	12	13	14
6	6	7	8	9	10	11	12	13	14	15
7	7	8	9	10	11	12	13	14	(5)	16
8	8	9	10	11	12	13	14	15	16	17
9	9	10	11	12	13	14	15	16	17	18

- 4 → Find the 4 at the left.
- $+5 \rightarrow$  Find the 5 at the top.
  - 9 The sum is recorded where the 4-row and 5-column meet.
    - 7 Find the \_\_\_\_\_ at the left.
- $+8 \longrightarrow$  Find the \_\_\_\_\_ at the top.
- 15 The sum is recorded where

the \_\_\_\_\_-row and \_\_\_\_\_-column meet.

Add.

1. 
$$\begin{array}{c} a \\ 5 \\ +3 \end{array}$$

$$d \\ 6 \\ +3$$

$$\begin{array}{c}
 h \\
 3 \\
 +7 \\
 \end{array}$$

Check your answers. Record your score.

Perfect score: 56

# Subtraction

-	. ,	0	1	2	3	4	5	6	7	8	9
0		0	1	2	3	4	5	6	7	8	9
1		1	2	3	4	5	6	7	8	9	10
2		2	3	4	5	6	7	8	9	10	11
3	)	3	4	5	6	7	8	9	10	11	12
4		4	5	6	7	8	9	10	11	12	13
5		5	6	7	8	9	10	11	12	13	14
6	2	6	7	8	9	10	11	12	13	14	15
7		7	8	9	10	11	12	13	14	15	16
8		8	9	10	11	12	13	14	15	16	17
9		9	10	11	12	13	14	15	16	17	18

9 | Find the 9 which is below -6 the 6 at the top.

3 ← The difference is recorded in the at the left of this row.

Find the \_\_\_\_\_ which is 12

below the \_\_\_\_\_ at the top. 8 — The difference is recorded in the at the left of this row.

Subtract.

Check your answers. Record your score. Perfect score: 56 My score:

# PRE-TEST—Addition and Subtraction

Add.

$$11 + 16$$

Subtract.

Check your answers. Record your score.

Perfect score: 54

# Addition and Subtraction

36

+2

Add.

Subtract.

Check your answers. Record your score. Perfect score: 48

My score: \_\_\_

Solve each problem. 1. Raymond has 27 baseball cards. His friend Louis 1. has 6 baseball cards. How many more baseball cards does Raymond have than Louis? Raymond has \_\_\_\_\_\_ baseball cards. Louis has \_\_\_\_\_ baseball cards. Raymond has \_\_\_\_\_ more baseball cards. 2. 2. The Cubs got 8 hits in the first game and 11 hits in the second game. How many hits did they get in both games? They got \_\_\_\_\_ hits in the first game. They got \_\_\_\_\_ hits in the second game. They got \_\_\_\_\_ hits in both games. 3. In Miss Holt's class, there are 23 pupils present and 3. 5 pupils absent. How many pupils are in Miss Holt's class? There are \_\_\_\_\_ pupils present. There are \_\_\_\_\_ pupils absent. There are \_\_\_\_\_ pupils in Miss Holt's class. 4. Melody has 12 crayons and Teresa has 6 crayons. 4. How many crayons do both girls have? Melody has \_\_\_\_\_ crayons. Teresa has \_\_\_\_\_ crayons. Together they have \_\_\_\_\_ crayons. 5. 5. In Melvin's apartment house, there are 19 girls and 7 boys. How many more girls than boys live in that apartment house? There are \_\_\_\_\_ more girls than boys.

Check your answers. Record your score.

Perfect score: 13

# Addition

If 
$$6+2=8$$
, then  $60+20=80$ 

If 
$$5+4=9$$
, then  $50+40=$ \_\_\_\_\_.

Add.

Check your answers. Record your score. Perfect score: 42

My score: \_

Solve each problem.	
1. There are 14 boys in Miss Evans' room. There are 15 girls in the room. How many pupils are in her room?	1.
There are boys.	
There are girls.	
There are pupils in Miss Evans' room.	
2. Sally's father worked 42 hours last week. This week he worked 46 hours. How many hours did he work during those two weeks?	2.
He worked hours last week.	
He worked hours this week.	
He worked hours during those two weeks.	
3. Joan's family has two dogs. One weighs 31 pounds. The other weighs 28 pounds. What is the combined weight of the dogs?	3.
One dog weighs pounds.	
The other dog weighs pounds.	
Their combined weight is pounds.	
4. Milton had 43 baseball cards. His cousin gave him 25 more. How many baseball cards did he have then?	4.
Milton had baseball cards.	
His cousin gave him baseball cards.	
Then he had baseball cards.	
5. Mr. Cook was 25 years old when Mary was born. How old will he be when Mary has her thirteenth birthday?	5.
Mr. Cook will be years old.	
Check your answers. Record your score. Perfec	t score: 13 My score:

NAME \_\_\_\_\_

# Subtraction

$$\begin{array}{ccc}
5 & 50 \\
-3 & -30 \\
\hline
2 & 20
\end{array}$$

$$\begin{array}{c}
 8 \\
 -2 \\
 \hline
 6
 \end{array}$$
 $\begin{array}{c}
 80 \\
 -20 \\
 \hline
 60
 \end{array}$ 

If 
$$5-3=2$$
, then  $50-30=20$ .

If 
$$8-2=6$$
, then  $80-20=$ \_\_\_\_\_.

Subtract.

$$83$$
 $-12$ 

Check your answers. Record your score.

Perfect score: 42

Problems	
Solve each problem.	
1. Mary read 38 pages yesterday. She read 21 pages today. How many more pages did she read yesterday than today?	1.
Mary read pages yesterday.	
She read pages today.	
She read more pages yesterday.	
2. Catherine weighs 69 pounds. Her sister weighs 53 pounds. How much more does Catherine weigh?	2.
Catherine weighs pounds.	
Her sister weighs pounds.	
Catherine weighs more pounds.	
3. Mr. Jones is 38 years old. His wife is 32. How much older is Mr. Jones than his wife?	3.
Mr. Jones is years old.	
His wife is years old.	
Mr. Jones is years older.	
4. Walter can kick a football 28 yards. He can throw it 21 yards. How much farther can he kick the football?	4.
He can kick the football yards.	
He can throw the football yards.	
He can kick the football yards farther.	
5. Silver Lake is 24 miles west of Wautoma. Mt. Morris is 37 miles west of Wautoma. How far is it from Silver Lake to Mt. Morris?	5.

It is \_\_\_\_\_ miles from Silver Lake to Mt. Morris.

Check your answers. Record your score.

Perfect score: 13

# TEST—Addition and Subtraction

Add.

1. 
$$\begin{array}{c} a \\ 20 \\ +9 \end{array}$$

Subtract.

Check your answers. Record your score.

Perfect score: 50 My score: \_\_\_

# PRE-TEST—Addition and Subtraction

Add.

1.  $\begin{array}{c} a \\ 1 \\ 2 \\ +5 \end{array}$ 

b 6 4 +2

c 7 8 +5 d 3 7 +5

e 8 7 +9 f 8 5 +4

2. 28 +7 4 2 +9

7 +63 8 +47 7 +4 9

3. 67 +25 3 4 +7 2 87 +29 3 6 +2 1 5 295 +42 388 +25

4. 52 24 +37

Subtract.

5. 26 -7 83 -9 67 -8 4 3 -7 9 4 -6 7 6 -9

6. 43 -28

6 4 -2 5 73 -47 83

7 6 -2 9 83

7. 129 -67 839

4 2 5 -8 4 987 -95 654 -57 832 -51

8. 364 -76 5 2 4 -6 9 608 -59 832

7 8 4 -8 5 477 -98

9. 584 -75 834 -15

679 -89  $983 \\ -91$ 

201 -96 485 -98

Check your answers. Record your score.

Perfect score: 54

# Addition

Add.

Check your answers. Record your score.

Perfect score: 40 My score:

Solve each problem.	
1. A football team gained 2 yards on first down, 3 yards on second down, and 6 yards on third down. How many yards did they gain in the three downs?	
They gained yards on first down.	
They gained yards on second down.	
They gained yards on third down.	
They gained yards in the three downs.	
2. Mrs. Woods purchased 5 apples, 4 oranges, and 6 pears. How many pieces of fruit did she purchase?	<b>2.</b>
She purchased apples.	
She purchased oranges.	
She purchased pears.	
She purchased pieces of fruit.	
3. One day the park department planted 3 maple trees, 4 oak trees, 2 poplar trees, and 7 aspen trees. How many of these kinds of trees did they plant that day?	e <b>3.</b>
They planted maples.	
They planted oaks.	
They planted poplars.	
They planted aspens.	
They planted of these trees.	
4. At the park there are 3 jungle gyms, 6 seesaws and 2 monkey bars. How many pieces of playgroun equipment are there?	
There are pieces of playground equipment	
Check your answers. Record your score. Perf	ect score: 14 My score:

# Addition

46

Add the ones. 6+7=

Add the tens. 10+40+20=\_\_

Add.

Check your answers. Record your score.

Perfect score: 42



Solve each problem.  1. How many tires are on the tire rack?	1.
There are white-wall tires.	
There are black-wall tires.	
There are tires on the tire rack.	·
2. How long would it take to grease a car and change the oil?	2.
It takes about minutes to grease a car.	
It takes about minutes to change the oil.	
It would take about minutes to grease a car and change the oil.	
3. This morning 37 people got regular gasoline and 5 got premium gasoline. How many people got gasoline?	3.
people got gasoline.	
4. Mr. Wells got 17 gallons of gasoline on Tuesday. He got 19 gallons on Friday. How many gallons did he get in the two days?	4.
He got gallons in the two days.	

# Addition

48 8 48 57 7 15 48 57 +29 +9 +9 +29 24 Add the ones. 
$$8+7+9=$$

Add the tens. 20+40+50+20=Rename 130. 130=100+

Add.

Rename 24. 24 = 20 + \_\_\_\_

Check your answers. Record your score.

Perfect score: 36

1 TODIO III	
Solve each problem.	
1. One year Roger Maris hit 61 home runs. Mickey Mantle hit 54 home runs. How many home runs did they hit that year?	1.
Roger Maris hit home runs.	
Mickey Mantle hit home runs.	
They hit a total of home runs.	
2. Last week Tony read a 76-page book. This week he read an 83-page book. How many pages are in the two books?	2.
Last week he read apage book.	
This week he read anpage book.	
There are pages in the two books.	
3. Jackie has 75 feet of kite string. Mike has 96 feet of kite string. How much kite string do they have?	3.
They have feet of kite string.	
4. Mrs. Wills went 57 miles the first hour. She went 65 miles the second hour. She went 52 miles the third hour. How far did she go?	4.
She went miles.	
5. Yesterday the fruit market sold 68 cantaloupes, 14 honey dew melons, and 76 watermelons. How many of these kinds of melons did they sell altogether?	5.
They sold melons.	
6. A cafeteria served 52 women, 47 men, and 69 children. How many people did the cafeteria serve?	6.
The cafeteria served people.	
Check your answers. Record your score. Perfec	t score: 10 My score:

# Subtraction

147

To subtract the ones, rename 147 as 100 + 30 + 17 ----

Subtract the ones. 17-9=

$$\begin{array}{r}
 14/7 \\
 -19 \\
 \hline
 28
\end{array}$$

$$\begin{array}{r}
 147 \\
 \hline
 128
 \end{array}$$

Subtract the tens. 30-10=

Subtract the hundreds, 100-0=

#### Subtract.

Check your answers. Record your score.

Perfect score: 42

My score: \_\_\_\_

TODICIIIS	
Solve each problem.	
1. Alvin kicked a football 32 yards and Walter kicked it 19 yards. How much farther did Alvin kick the football than Walter?	1.
Alvin kicked the football yards.	
Walter kicked the football yards.	
Alvin kicked the football yards farther than Walter.	
2. The gas tank on Mr. Richards' car can hold 23 gallons. It took 17 gallons to fill the tank. How many gallons were in the tank before filling up?	2.
The tank will hold gallons.	
He purchased gallons.	
There were gallons in the tank before filling up.	
3. Joy jumped rope 42 times. Rachel jumped it 27 times. How many more times did Joy jump the rope?	3.
Joy jumped times without missing.	
Rachel jumped times without missing.	
Joy jumped more times without missing than Rachel.	
4. There are 283 pupils at Adams school. Sixty-seven of these pupils were in the park program last year. How many of the pupils were not in the program?	4.
pupils were not in the program.	
5. Pablo's father weighs 173 pounds. Pablo weighs 65 pounds. How much more does Pablo's father weigh?	5.
Pablo's father weighs pounds more.	
Chack your answers Record your score. Perfect	t score: 11 My score:

# Subtraction

306 -89

306 -89

To subtract ones:

Rename 306 as 200 + 100 + 6.

Then rename 100+6 as 90+\_\_\_\_\_.

Subtract the ones. 16-9=

308

Subtract tens.

90-80=\_\_\_\_

Subtract hundreds.

200-0=\_\_\_

#### Subtract.

a

 $\boldsymbol{b}$ 

c

d

e

f 126 -71

Check your answers. Record your score.

Perfect score: 42 My score: \_\_\_\_

Problems	•
Solve each problem.	
1. A school building is 64 feet high. A flagpole is 125 feet high. How much higher is the flagpole?	1.
The flag pole is feet high.	
The school building isfeet high.	
The flag pole is feet higher.	
2. Steve threw a ball 117 feet. His cousin threw it 86 feet. How much farther did Steve throw it?	2.
Steve threw the ball feet.	
His cousin threw the ball feet.	
Steve threw the ballfeet farther.	
3. The engine of the Smiths' car is rated at 95 horse-power. The horsepower of one of the racers at the local speedway is 365. What is the difference in the horse-power of the two engines?	3.
The racer has horsepower.	
The Smiths' car has horsepower.	
The racer has more horsepower.	
4. Last year Mrs. Moore's bowling average was 91. This year her average is 123. How much has her bowling average improved over last year?	4.
Her average has improved points.	
5. Trudy is reading a 234-page book. She has read 57 pages. How many more pages does she still have to read?	5.
She has pages yet to read.	
Chock your answers Record your score. Perfect	et score: 11 My score:

# Addition and Subtraction

$$62 + 57$$
 $119$ 

To check 62 + 57 = 119. subtract 57 from 119.

-57

62

The difference should be

125

125

To check 125 - 67 = 58.

add \_\_\_\_\_\_ to 58.

The sum should be \_\_\_\_

Add. Check each answer.

 $\boldsymbol{c}$ 

d

59 +35

Subtract. Check each answer.

Check your answers. Record your score.

Perfect score: 24

# Addition and Subtraction

Add.

Subtract.

$$75 - 18$$

$$50 - 17$$

Check your answers. Record your score.

Perfect score: 54 My score: \_

# TEST—Addition and Subtraction

Add. Check each answer.

 $\alpha$ 1.

3 7 +6

8

59 +8

5

e63

f +81

2. 65 +27

3 4 +92

88 +37

159 +82

267 +76

347 +96

Subtract. Check each answer.

3. 84 -27 74

68 -49

93 -38

6 1 -47

78 -59

4. 135 -64

126 -84 463 -72

153 -96

384 -96 302 -85

Solve.

5. Manny weighs 67 pounds, Carlos weighs 73 pounds, and Alex weighs 78 pounds. What is their combined weight?

Their combined weight is \_\_\_\_\_ pounds.

Check your answers. Record your score.

Perfect score: 25

My score: \_\_\_\_\_

# PRE-TEST—Addition and Subtraction

Add.

Subtract.

9. 
$$67524$$
 $34723$ 
 $78243$ 
 $80145$ 
 $76762$ 
 $78545$ 
 $-1321$ 
 $-2308$ 
 $-4152$ 
 $-1913$ 
 $-9341$ 
 $-2837$ 

Check your answers. Record your score.

Perfect score: 54

# Addition and Subtraction

Α

B

C

D

E

F

$$\begin{array}{r}
 1253 \\
 \hline
 1253 \\
 \hline
 -582 \\
 \hline
 71
 \end{array}$$

A Add ones, 3+2=

B Add tens. 80+60=\_\_\_\_

Rename 140 as \_\_\_\_\_+40.

C Add hundreds, 100 + 700 + 500 =

Rename 1300 as \_\_\_\_\_+ 300.

D Subtract ones. 3-2=

E To subtract tens, rename 1000+200+50 as

1000+100+\_\_\_\_\_

Subtract tens. 150 – 80 = \_\_\_\_\_

F To subtract hundreds, rename

1000 + 100 as \_\_\_\_\_.
Subtract hundreds.

1100-500=\_\_\_\_

#### Add.

$$c$$
2 3 2
+ 5 7 3

$$d$$
3 2 5
+8 1 4

$$e$$
3 2 8
+1 9 3

Subtract.

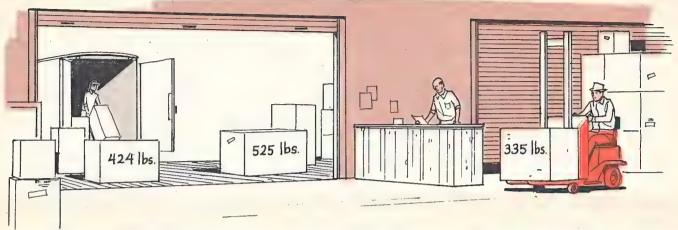
$$\begin{array}{c} b \\ 757 \\ -129 \end{array}$$

$$c$$
4 6 7
 $-1$  8 2

$$d$$
9 5 2
 $-2 7 8$ 

Check your answers. Record your score.

Perfect score: 33



Answer each question.  1. What is the combined weight of the 335-pound shipment and the 525-pound shipment?  Are you to add or subtract?	1.
What is the combined weight?	
2. The lift truck can lift a maximum of 950 pounds.  How many pounds less than the maximum does the lift truck shown above have on it?  Are you to add or subtract?  How many pounds less than the maximum are on the lift truck?	2.
3. What is the combined weight of the two heavier shipments shown above? Are you to add or subtract?  What is the combined weight?	3.
4. The lift truck shown above weighs 1,925 pounds when empty. How many pounds more does it weigh than the load it is carrying?  Are you to add or subtract?  How many pounds more does the lift truck weigh than its load?	4.
5. One of the shipments will be sent to a dealer 1,453 miles away. Another will go to a warehouse 545 miles away. How much farther will the first shipment travel?  Are you to add or subtract?  How much farther will the first shipment travel?	5.
Check your answers. Record your score. Perfect	t score: 10 My score:

28

#### Addition and Subtraction

12587 -7306

Add ones.

Add tens.

$$80 + 0 =$$

Add thousands. 
$$5000 + 7000 =$$
\_\_\_\_\_

Rename 12000 as \_\_\_\_\_ +2000.

Subtract ones.

7-6=

Subtract tens.

$$80-0=$$

Subtract hundreds. 500-300=\_\_\_\_\_

To subtract thousands.

rename 10000 + 2000 as \_\_\_\_\_

Subtract thousands. 12000-7000=

$$12000 - 7000 =$$

Add.

$$d$$
5 2 6 3
+1 8 2 4

Subtract.

$$6735$$
 $-1264$ 

$$15747$$
 $-6936$ 

$$10137$$
 $-9652$ 

$$17675$$
 $-8896$ 

Check your answers. Record your score.

Perfect score: 30

My score: \_\_\_\_\_

P	ro	h	ما	ms
	ı	v	15	1113

Solve each problem.  1. The school library contains 1,493 books. One day 198 books were checked out. How many books were left in the library?	1.
There are books in the library.	
There were books checked out.	
There were books left in the library.	
2. Potter County sold 7,376 auto licenses. Randall County sold 5,924. How many did both counties sell?	2.
licenses were sold in Potter County.	
licenses were sold in Randall County.	
licenses were sold in the two counties.	
3. The Myers want to buy a station wagon for \$4,365 or a sedan for \$2,978. How much more does the station wagon cost?  The station wagon costs more.	3.
4. St. Louis is 1,208 miles from Boston. San Francisco is 2,134 miles from St. Louis. How far is it from Boston to San Francisco by way of St. Louis?	4.
It is miles from Boston to San Francisco by way of St. Louis.	
5. Mr. Odum drove 12,594 miles. Mr. Saxton drove 9,428 miles. How much farther did Mr. Odum drive?	5.
	·
Mr. Odum drove miles farther.	
Check your answers. Record your score. Perfe	ct score: 9 My score:

NAME

#### Addition

		C+ 2		1 2 2
4325	Add the ones.	4325	Follow a similar	4325
6078		6078	pattern to add the	6078
5298	5+8+8+4=	5298	tens, the hundreds,	5298
+5764	Rename 25.	+5764	and so on.	+5764
				01465
	25= +5	5		21465

Add.

Check your answers. Record your score.

Perfect score: 30

The following problems are from the Ace Taxi Company records for three weeks.

Solve each problem.

Dorve each problem.	
1. The amounts of gasoline used were 324 gallons, 361 gallons, and 342 gallons. How much gasoline was used?	1.
gallons were used the first week.	
gallons were used the second week.	r
gallons were used the third week.	
gallons were used in all.	
2. One of the taxis ran for 126 hours, 133 hours, and 108 hours. How many hours did that taxi run?	2.
It_ran for hours.	
3. The miles driven by all the taxis were 2,942 miles, 3,351 miles, and 3,104 miles. What was the number of miles driven altogether?	3.
miles were driven in all.	
4. The amounts of fares collected were \$2,421, \$2,-733, and \$3,025. How much was collected in fares altogether?	4.
dollars were collected.	
5. The number of passengers each week was 3,205 passengers, 3,542 passengers, and 2,821 passengers. How many passengers were there in all?	5.
There were passengers in all.	
Check your answers. Record your score. Perfec	ct score: 8 My score:

# Addition and Subtraction

Add.

Subtract.

$$5619$$
 $-2348$ 

$$4187$$
 $-2574$ 

$$6753$$
 $-1942$ 

$$7815$$
 $-4176$ 

Check your answers. Record your score.

Perfect score: 45 My score: \_\_\_\_

Solve each problem.	
1. A pickup truck weighs 3,850 pounds. It was loaded with 2,425 pounds of freight. What is the weight of the pickup and its load?	1.
The pickup truck weighs pounds.	
Its load weighs pounds.	
The total weight is pounds.	
2. At Wilson School there are 1,029 girls and 983 boys. How many more girls than boys are there at Wilson School?	2.
There are girls.	
There are boys.	
There are more girls than boys.	
3. In an election, Mr. Krietmann got 4,327 votes. Mr. Staley got 2,539 votes. How many more votes did Mr. Krietmann get?	3.
Mr. Krietmann received more votes than Mr. Staley.	
4. There were 9,852 people at a hockey game. There were 7,569 at a basketball game. How many were at these games?	4.
people were at the games.	
5. Ty Cobb made 4,191 base hits in his baseball career. Babe Ruth made 2,873 base hits. How many more base hits did Cobb make?	5.
Cobb made more base hits.	
Check your answers. Record your score. Perfe	ct score: 9 My score:

#### TEST—Addition and Subtraction

Add.

1. 
$$\begin{array}{c} a \\ 3 \ 4 \ 2 \\ +3 \ 2 \ 5 \end{array}$$

Subtract.

$$c$$
1765
 $-934$ 

$$d$$
2576
 $-882$ 

$$6753$$
 $-1908$ 

$$17024$$
 $-9653$ 

Solve each problem.

6. The Empire State Building is 1,250 feet high and has a 222-foot TV tower on top. What is the combined height of the building and tower?

6.

The combined height is \_\_\_\_\_ feet.

7. The Smiths drove 8,454 miles. The Johnsons drove 9,649 miles. How many more miles did the Johnsons drive than the Smiths?

7

The Johnsons drove \_\_\_\_\_ more miles.

Check your answers. Record your score.

Perfect score: 25

## PRE-TEST—Multiplication

Multiply.

Check your answers. Record your score.

Perfect score: 54

	×	0	1	2	3	4	5		6	7	8		9
ı	0	0	0	0	0	0	0		0	0	0		0
	1	0	1	2	3	4	5		6	7	8		9
ı	2	0	2	4	6	8	10	1	2	14	16	1	8
ı	3	0	3	6	9	12	15	1	8	21	24	2	7
l	4	0	4	8	12	16	20	2	4	28	32	3	6
ı	5	0	5	10	15	20	25	É	0	35	40	4	5
l	6	0	6	12	18	24	30	3	6	42	48	54	4
ı	7	0	7	14	21	28	35	4	2	49	56	6.	3)
	8	0	8	16	24	32	40	4	8	56	64	72	2
	9	0	9	18	27	36	45	5	4	63	72	8:	1

 $5 \longrightarrow \text{Find the } 5$  at the left.

 $\times 6 \longrightarrow$  Find the 6 at the top.

The product is named where the 5-row and 6-column meet.

7 — Find the \_\_\_\_ at the left.

 $\times 9$  — Find the \_\_\_\_ at the top.

The product is named where the 7-row and 9-column meet.

#### Multiply.

$$y$$
7
 $\times 1$ 

Check your answers. Record your score.

Perfect score: 56

My score: \_\_\_\_\_

Solve each problem.	
1. Last week Tommy's father worked five 8-hour shifts. How many hours did he work last week?	1.
He worked shifts.	
There were hours in each shift.	
He worked hours last week.	
2. A certain factory operates two 8-hour shifts each day. How many hours does the factory operate each day?	2.
There are shifts.	
There are hours in each shift.	
The factory operates hours each day.	
3. It takes the clean-up crew 4 hours to clean the factory after each day's work. How many hours will the clean-up crew work during a 5-day week?	3.
The clean-up crew works hours a day.	
They work days a week.	
The clean-up crew works hours a week.	
4. Gloria's mother works 5 hours each day and 5 days each week. How many hours does she work each week?	4.
She works hours each week.	
5. The plant engineer figures that it costs the company 5 dollars to operate a certain machine for an hour. How much will it cost the company to operate that machine for 6 hours?	5.
It will cost dollars to operate that machine for 6 hours.	
Check your answers. Record your score. Perfect	et score: 11 My score:

$$\begin{array}{ccc}
2 & 20 \\
\times 3 & \times 3 \\
\hline
6 & 60
\end{array}$$

$$2 \times 4 = 8$$
, so  $2 \times 40 = 80$ .

$$3 \times 2 = 6$$
, so  $3 \times 20 =$ \_\_\_\_\_.

Multiply.

Check your answers. Record your score.

Perfect score: 42



1.

2.

Solve each	h proble	m.					
1. There	are 12	packages	of p	eanuts	in e	each	box.
How many shown abov		es of pean	uts a	re tnere	e 111	the t	oxes
There are	·	packa	ages i	n each l	oox.		

		•	
-			

There are \_\_\_\_\_ packages in all.

There are \_\_\_\_\_ boxes of peanuts.

2. There are 24 candy bars in each box. How many candy bars are there in the boxes shown above?

There are \_\_\_\_\_ candy bars in each box.

There are \_\_\_\_\_ boxes of candy bars.

There are \_\_\_\_\_ candy bars in all.

3. There are 12 mint sticks in a dozen. How many mint sticks are there in each of the boxes shown above?

There are \_\_\_\_\_ mint sticks in each of the boxes.

4. There are 12 suckers in each box. How many suckers are there in the boxes shown above?

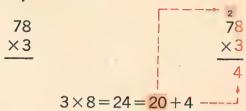
3.

4.

There are \_\_\_\_\_ suckers in all.

Check your answers. Record your score.

Perfect score: 8 My score:



4 is recorded as \_\_\_\_\_ ones.

20 is shown as \_\_\_\_\_ tens in

30 is recorded as \_\_\_\_\_ tens.

200 is recorded as \_\_\_\_\_ hundreds.

Multiply.

the tens column.

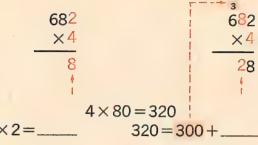
Check your answers. Record your score.

Perfect score: 42

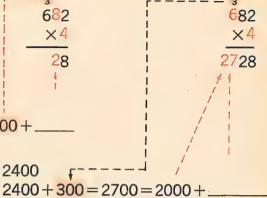
Solve each problem.	
1. A bottle of Biggie Soda contains 12 fluid ounces. How many fluid ounces are in 6 such bottles?	1.
There are fluid ounces in each bottle.	,
There are bottles.	
There are fluid ounces in 6 bottles.	
2. Mr. Long drives 14 miles to work each day. He works 6 days a week. How far does he drive to work each week?	2.
He drives miles each day.	
He works days each week.	
He drives miles each week.	
3. A case contains 24 cans. How many cans will be in 6 such cases?	3.
Each case contains cans.	
There are cases.	
There are cans in 6 cases.	
4. The Acme Salt Company shipped 8 sacks of salt to the Sour Pickle Company. Each sack of salt weighed 72 pounds. What was the weight of the shipment?	4.
The total weight of the shipment waspounds.	
5. A train can travel 62 miles an hour. How far can it travel in 4 hours?	5.
The train can travel miles in 4 hours.	
Check your answers Record your score. Perfec	t score: 11 My score:

$$\frac{4 \times 6}{24}$$





$$4 \times 600 = 2400$$



#### Multiply.

#### Multiply.

Check your answers. Record your score.

Perfect score: 32

Problems	
Solve each problem.	1
1. An airplane can carry 183 passengers. How many passengers could 5 such airplanes carry?	1.
They could carry passengers.	
2. The school ordered 7 sets of books. There are 125 books in each set. How many books were ordered?	2.
books were ordered.	
3. Each family in a building was given 4 keys. There were 263 families in the building. How many keys were given out?	3.
keys were given out.	
4. Each pupil receives 2 cartons of milk a day. There are 912 pupils in the school. How many cartons of milk will be needed?	4.
cartons of milk will be needed.	· · · · · · · · · · · · · · · · · · ·
5. There are 217 apartments in Jane's building. Each apartment has 6 windows. How many windows are there in all?	5.
There are windows in all.	
6. A certain baseball player has made at least 165 base hits in each of the last 5 years. What is the least number of base hits he could have made during that period?	6.
He made at least base hits.	
7. Carlos delivers 128 papers each day. How many papers will he deliver in 6 days?	7.
He will deliver papers in 6 days.	
Check your answers. Record your score. Perfe	ect score: 7 My score:

Multiply.

Multiply.

Check your answers. Record your score.

Perfect score: 49

My score: \_\_\_\_

Problems	
Solve each problem.  1. Each side of a baseball diamond is 90 feet in length. How far is it around the baseball diamond?	1.
It is feet around the diamond.	
2. Lois practices her flute 35 minutes each day. How many minutes does she practice during a week?  She practices minutes each week.	2.
3. A certain light fixture contains six 75-watt light bulbs. When all the bulbs are on, how many watts are being used?  The 6 bulbs are using watts.	3.
4. A bus fare is 45 cents. What is the cost of 2 fares?	4.
The cost is cents.	
5. An aircraft carrier is as long as 3 football fields. A football field is 360 feet long. How long is the aircraft carrier?  It is feet long.	5.
6. A shipment has 5 boxes. Each box weighs 125 pounds. What is the weight of the shipment?	6.
The total weight is pounds.	
7. A certain airliner cruises at 635 miles per hour. How far would the airliner travel in 4 hours at that speed?	7.

It would travel \_\_\_\_\_ miles.

8. A certain machine can produce 265 items an hour. At this rate, how many items can be produced in 8 hours?

8.

\_ items can be produced.

Check your answers. Record your score.

Perfect score: 8

## TEST—Multiplication

Multiply.

Multiply.

$$\begin{array}{c} d \\ 1\ 1\ 3 \\ \times 5 \end{array}$$

Check your answers. Record your score.

Perfect score: 50

## PRE-TEST—Multiplication

Multiply.

a

$$c$$
1 1
 $\times$ 7 0

$$\begin{array}{c} d \\ 6 \ 4 \\ \times 4 \ 0 \end{array}$$

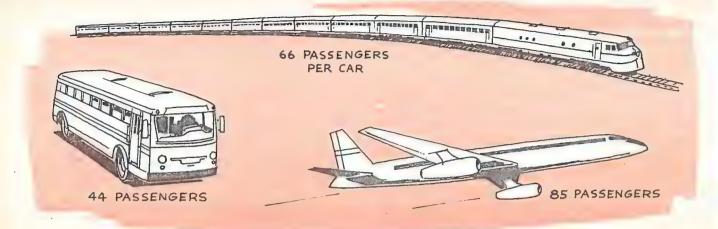
Multiply.

 $\alpha$ 

$$3 \times 21 = 63$$
, so

#### Multiply.

1.



Solve each problem.

1. What is the greatest number of passengers that can ride on 12 buses like the one shown above?	1.
Each bus can carry passengers.	
There are buses.	
passengers can ride on the buses.	
2. There are 11 cars in the train shown above. How many passengers can ride on the train?	2.
Each car can carry passengers.	
There are passenger cars.	
passengers can ride on the train.	
3. There are 11 outgoing flights using planes like the one shown above. What is the greatest number of passengers that can be on these flights?	3.
There can be passengers.	
4. A jet plane uses 21 gallons of fuel each minute. How many gallons will it use in 24 minutes?	4.
gallons will be used.	
Check your answers. Record your score. Perfe	ct score: 8 My score:

$$\begin{array}{cccc}
 56 & 56 \\
 \times 4 & \times 40 \\
 \hline
 224 & 2240
 \end{array}$$

$$4 \times 56 = 224$$
, so

### Multiply.

Problems	
Solve each problem.	
1. A school bus can carry 66 pupils. How many pupils can ride on 12 such buses?	1.
pupils can ride on 12 buses.	
2. At 55 miles per hour, how far can a train travel in 12 hours?	2.
It could travel miles.	
3. A certain machine can produce 45 items per minute. At that rate, how many items can the machine produce in 15 minutes?	3.
It can produce items.	<u> </u>
4. A grocer purchased 18 cases of canned goods. There are 24 cans in each case. How many cans were purchased?	4.
cans were purchased.	
5. A photographer purchased 36 rolls of film. Twelve pictures can be made from each roll. How many pictures can be made with the film purchased?	5.
pictures can be made.	
6. Mr. Johnson works 44 hours each week. How many hours will he work in 13 weeks?	6.
He will work hours.	
7. At 60 miles an hour a car travels 88 feet per second. At this speed how far will a car travel in 25 seconds?	7.
It will travel feet.	
8. There are 24 hours in a day. How many hours are there in 14 days?	8.
There are hours in 14 days.	
Cheels your answers Record your score Perfe	ect score: 8 My score:

Multiply.

a 1. 24 ×20 b 32 ×30

c 2 1 ×4 0

e75  $\times$ 60

2. 4 2 × 2 1

3 2 ×2 3 2 2 ×4 2 2 3 ×1 3 33 ×23 2 4 ×2 2

3. 43 ×25 8 7 ×1 7 3 4 ×2 5 3 2 ×2 8 2 1 ×4 8 3 2 ×3 9

4. 5 4 ×7 1 4 3 ×7 2 3 2 ×6 3 4 2 ×8 2 83 ×51 3 4 ×9 2

5. 68 ×73 4 2 ×5 8 4 9 ×8 6

3 7 ×9 4 62 ×48 28 ×59

Check your answers. Record your score.

Perfect score: 30

Solve each problem.	
1. Mrs. Carter can type 55 words a minute. How many words can she type in 15 minutes?	1.
She can type words.	
2. A machine puts caps on bottles at a rate of 96 per minute. At that rate, how many bottles can be capped in 25 minutes?	2.
bottles can be capped in 25 minutes.	
3. Mr. Oliver travels 28 miles getting to and from work each day. How many miles will he travel in 22 working days?	3.
He would travel miles.	
4. There are 48 thumbtacks in a box. How many are there in 15 boxes?	4.
There are thumbtacks.	
5. There are 24 cars on a train. Suppose 66 passengers can ride in each car. How many passengers can ride on the train?	5.
There can be passengers in all.	
6. Carlos delivers 75 papers each day. How many papers will he deliver in 14 days?	6.
He will deliver papers.	
7. A new building is to be 16 stories high. There are to be 14 feet for each story. How high will the building be?	7.
The building will be feet high.	
Check your answers. Record your score. Perfe	ct score: 7 My score:

624 624 ×2 ×20 1248 12480

 $2 \times 624 = 1248$ , so

20×624=\_\_\_\_

3×512=\_\_\_\_\_ 20×512=\_\_\_\_\_

1536+10240=\_\_\_\_

#### Multiply.

a
1. 6 1 5
×3

c 7 2 8 ×4  $\begin{array}{c}
d \\
728 \\
\times 40
\end{array}$ 

2. 132 ×4

132 ×20 132 ×24 3 2 3 ×3 3 2 3 ×6 0 3 2 3 ×6 3

#### Multiply.

3. 212 ×23 *b* 

4 2 3 ×1 2 c

121 ×49 d

3 2 1 ×3 7

4. 324 ×82

3 4 3 ×6 2 429 ×63 7 4 9 ×9 6 476 ×83

Solve each problem.	
1. Each of 24 workers is to deliver 144 circulars. How many circulars are to be delivered in all?	1.
circulars are to be delivered.	
2. Each hour 225 pictures can be developed. How many pictures can be developed in 12 hours?	2.
pictures can be developed.	
3. One section of a Sports Arena has 24 rows of seats. There are 125 seats in each row. How many seats are there in that section?	3.
There are seats in that section.	
4. A shipment consists of 145 cases. Each case weighs 65 pounds. What is the weight of the shipment?	4.
The total weight is pounds.	
5. James sells 165 papers a day. How many papers will he sell in 28 days?	5.
He will sell papers.	
6. A jet cruises at 575 miles an hour. At that rate, how many miles will it travel in 12 hours?	6.
It will travel miles.	
7. A certain desk weighs 135 pounds. How many pounds would 15 of the desks weigh?	7.
They would weigh pounds.	
8. Suppose a player averages 165 base hits a season. How many base hits will he make in 15 seasons?	8.
He will make base hits.	
Check your answers. Record your score. Perfe	ct score: 8 My score:

Multiply.

Multiply.

Check your answers. Record your score.

Perfect score: 27

Solve each problem.	
1. There are 24 slices of bread in a loaf. How many slices are there in 25 loaves?	1.
There are slices.	
2. There are 125 sheets in a giant pack of notebook paper. How many sheets are there in 12 giant packs?	2.
There are sheets.	
3. There are 12 eggs in a dozen. How many eggs are there in 16 dozen?	3.
There are eggs in 16 dozen.	
4. There are 180 eggs packed in a case. How many eggs are there in 24 cases?	4.
There are eggs.	
5. Fifty stamps are needed to fill each page of a stamp book. The book contains 24 pages. How many stamps are needed to fill the book?	5.
stamps are needed.	
6. There are 328 pages in each of the 16 volumes of an encyclopedia. How many pages are there in all?	6.
There are pages in all.	
7. Marsha practices the piano 35 minutes each day. How many minutes will she practice in 14 days?	7.
She will practice minutes.	,
8. The average weight of the 11 starting players on the Webster High School football team is 173 pounds. What is the total weight of these players?	8.
The total weight is pounds.	
	ct score: 8 My score:

## TEST—Multiplication

Multiply.

(

b

c

d

e 23 ×36

## PRE-TEST—Multiplication

Multiply.

a
1. 5000
×7

3 2 5 1 ×3  $\begin{array}{c} d \\ 4731 \\ \times 2 \end{array}$ 

2. 7131 ×5

7 6 5 2 ×8 2 1 2 1 ×2 4 6 7 4 2 ×1 7

3. 4132 ×62 8 7 6 7 ×7 1 5 2 6 4 ×6 9 4 6 7 5 ×7 8

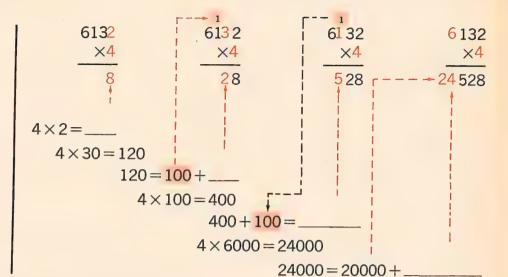
4. 321 ×300 5 6 7 ×4 0 0 312 ×320 432 ×207

5. 423 ×912 4 1 3 ×7 9 2 7 2 9 ×8 1 6 8 7 5 ×4 3 8 NAME \_\_\_\_

### Multiplication

$$\frac{6}{\times 4}$$

$$4 \times 6 = 24$$
, so



#### Multiply.

 $\times 3$ 

 $\times 3$ 

#### Multiply.

Check your answers. Record your score.

Perfect score: 27

Solve each problem.	
1. Each tank truck can haul 5,000 gallons. How many gallons can be hauled by 9 such trucks?	1.
gallons can be hauled.	
2. In each of 7 communities a company distributed 2,500 samples of a new product. How many samples were distributed in all?	2.
samples were distributed.	
3. Eight autos are on a freight car. Each auto weighs 4,250 pounds. What is the total weight of the autos on the freight car?	3.
The total weight is pounds.	
4. The rail distance between St. Louis and San Francisco is 2,134 miles. How many miles does a train travel when it makes a run from St. Louis to San Francisco and back?	4.
miles will be traveled.	
5. An airline hostess made 5 flights last week. The average length of each flight was 1,047 miles. How many miles did the hostess travel on those flights?	5.
She traveled miles.	
6. There are 6 machines stored in a warehouse. Each machine weighs 1,356 pounds. What is the total weight of the machines?	6.
The total weight is pounds.	
7. The West Side News Agency distributes 6,525 newspapers daily. How many newspapers will be distributed each week? (1 week = 7 days)	7.
newspapers will be distributed.	
Check your answers Record your score. Perfe	ect score: 7 My score:

NAME \_\_\_\_

3124  $\times 2$ 

6248

 $2 \times 3124 = 6248$ , so

 $20 \times 3124 =$ 

5372  $\times 38$ 42976

 $8 \times 5372 =$ \_\_\_

5372 ×38 42976 161160

 $30 \times 5372 =$ 

5372  $\times 38$ 42976 161160 204136 42976+161160=\_\_\_\_

Multiply.

1. 4000 ×2

 $\boldsymbol{b}$ 4000 ×20

 $\boldsymbol{c}$ 5000  $\times 3$ 

d5000 ×30

2000  $\times 40$  3000  $\times 30$  7000  $\times 50$  6000 ×90

2031 3. ×32

3132 ×22 2120 ×34 2314 ×25

4312 ×28

8752 ×19

4321 ×72

3012 ×93

5. 7654 ×81

7542  $\times 65$ 

8075 ×96

6209 ×58

Check your answers. Record your score.

Perfect score: 20

63

Solve each problem.	
1. Each day 7,500 tons of ore can be processed. How many tons can be processed in 25 days?	1.
tons of ore can be processed.	
2. One of the large ocean liners can carry 2,047 passengers. What is the maximum number of passengers the liner can carry on 25 voyages?	2.
There could be passengers.	
3. A certain computer can perform 9,456 computations per second. How many computations can be performed in 1 minute (60 seconds)?	3.
computations can be performed.	
4. A shipment consists of 1,072 cases of merchandise. Each case weighs 35 pounds. What is the total weight of the shipment?	4.
The total weight is pounds.	
5. The Bulls played 82 basketball games last year. The average attendance at each game was 6,547. What was the total attendance?	5.
The total attendance was	
6. The average number of miles a taxi is driven each month is 1,356 miles. At that rate, how many miles will a taxi be driven in 1 year? (1 year = 12 months)	6.
miles will be driven.	
7. Each day 2,225 cars can be assembled. How many cars can be assembled in 23 days?	7.
cars can be assembled.	
8. Suppose each car weighs 4,250 pounds. What is the total weight of 25 cars?	8.
The total weight is pounds.	
Check your answers. Record your score. Perfe	ct score: 8 My score:

Multiply.

$$d$$
2 4 2 1
 $\times$  4

Solve each problem. 1. Last week an average of 5,112 books a day was checked out of the city library. The library is open 6 days a week. How many books were checked out last week? books were checked out. 2. Suppose books continue to be checked out at the 2. rate indicated in problem 1. How many books will be checked out in 26 days? books would be checked out. 3. An auto dealer hopes to sell twice as many cars 3. this year as last year. He sold 1,056 cars last year. How many cars does the dealer hope to sell this year? The dealer hopes to sell \_\_\_\_\_ cars. 4. The Humphreys drive an average of 1,245 miles 4. each month. How many miles will they drive in a year? (1 year = 12 months)They will drive \_\_\_\_\_ miles. 5. 5. The supermarket sells an average of 1,028 dozen eggs each week. How many dozen eggs will be sold in 6 weeks? \_ dozen eggs will be sold. 6. 6. The Record Shoppe sells an average of 1,435 records each week. How many records will be sold in 52 weeks? records will be sold. 7. A certain machine can produce 2,154 items an hour. 7. How many items can be produced in 8 hours? \_\_\_\_ items can be produced. Perfect score: 7 My score: Check your answers. Record your score.

20×512=\_\_\_\_

## Multiplication

$$3 \times 512 = 1536$$
, so

# 300×512=\_\_\_\_

2048 + 10240 + 153600 = \_\_\_\_

Multiply.

×300



Solve each problem.	
1. Suppose each passenger on Flight 704 has 100 pounds of luggage. What is the total weight of the luggage?	
The total weight is pounds.	
2. The average weight of each passenger is 135 pounds. What is the total weight of the passengers on Flight 704?	
The total weight is pounds.	
3. Each week an airline has 168 flights like Flight 704. What is the maximum number of passengers that can be transported on those flights?	
The maximum number of passengers is	
4. The air distance from Chicago to New Orleans is 831 miles. An airline had 365 flights between these cities last year. What was the least number of miles traveled on these flights?	
The least number of miles was miles.	
5. Last year a jetliner was airborne a total of 885 hours. The jetliner averaged 550 miles an hour. How many miles did the jetliner travel last year?	
The jetliner traveled miles.	

Check your answers. Record your score.

Perfect score: 5 My score:

Multiply.

$$\begin{array}{c} d \\ 2 1 3 \\ \times 2 1 6 \end{array}$$

Check your answers. Record your score.

Perfect score: 20

Solve each problem.	,
1. Last year a bookstore sold an average of 754 books on each of the 312 days it was open. How many books were sold last year?	1.
books were sold.	
2. In one hour, 560 loaves of bread can be baked. How many loaves can be baked in 112 hours?	2.
loaves can be baked.	
3. The garment factory can manufacture 960 shirts each day. How many shirts can be manufactured in 260 days?	3.
shirts can be manufactured.	
4. Approximately 925 rolls of newsprint are used each week in putting out the daily newspaper. How many rolls of newsprint will be needed in 104 weeks?	4.
rolls of newsprint will be needed.	
5. An average of 825 gallons of water are used each hour at the automatic car wash. How many gallons of water will be used in 126 hours?	5.
gallons will be used.	
6. There are 112 firemen assigned to each of the city's 108 precincts. How many firemen are there in all?	6.
There are firemen in all.	
7. A service station sells an average of 965 gallons of gasoline per day. How many gallons will be sold in 365 days?	7.
gallons will be sold.	
Check your answers. Record your score. Perfe	ect score: 7 My score:

# **TEST**—Multiplication

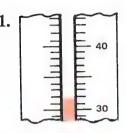
Multiply.

a

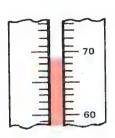
# PRE-TEST—Temperature, Money, and Roman Numerals

Record the temperature reading shown on each thermometer.

a



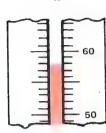
b



c



d



Add or subtract.

Multiply.

Complete the following as shown.

 $\alpha$ 

5. 
$$XIV = 14$$

 $\boldsymbol{b}$ 

$$CCX =$$

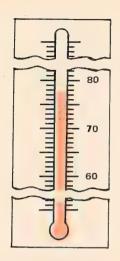
$$7. \quad 23 = XXIII$$

Check your answers. Record your score.

Perfect score: 29

My score: \_\_\_\_\_

# **Temperature**

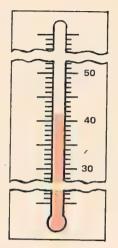


The temperature reading on the thermometer shown at the left is 78 degrees.

78 degrees can be written as 78°. The temperature reading on the thermometer shown at the

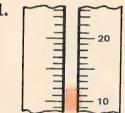
right is \_\_\_\_\_ degrees.

42 degrees can be written as



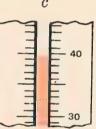
Record the temperature reading shown on each thermometer.

1.



a

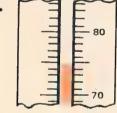


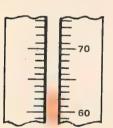


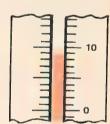
d



2.

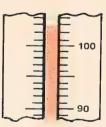






3.





Check your answers. Record your score.

Perfect score: 12

My score: \_\_\_\_

	•
Solve each problem.	
1. The high temperature for the day was 72 degrees. The low temperature was 48 degrees. What is the difference between these temperatures?	1.
The difference is degrees.	
2. The temperature at dawn was 62 degrees. By noon the temperature had risen 16 degrees. What was the temperature at noon?	2.
The temperature at noon was degrees.	
3. Water freezes at 32 degrees and boils at 212 degrees. What is the difference between these two temperatures?	3.
The difference is degrees.	
4. On June 1 the water temperature at the lake was 48 degrees. During June the water temperature rose 16 degrees. What was the water temperature July 1?	4.
The temperature of the water was degrees.	
5. Lead melts at 622 degrees and boils at 2,948 degrees. What is the difference between these two temperatures?	5.
The difference is degrees.	
6. Each quart of antifreeze will lower the freezing temperature of a car's cooling system 5 degrees. How much will the freezing temperature be lowered by adding 4 quarts of antifreeze?	6.
It will be lowered degrees.	
7. During a normal summer day, the temperature usually rises 35 degrees. The low temperature for a normal summer day is 55 degrees. What would the high temperature be?	7.
The high temperature would be degrees.	
Check your answers. Record your score. Perfe	ect score: 7 My score:

## Money

$$1 \text{ cent} = 1 \text{ cent} = 1 \text{ cent}$$

$$65 \text{ cents} = 65 \text{¢} \text{ or } \$.65$$

1 dollar = 
$$100¢$$
 or \$1.00

Complete the following.

 $\boldsymbol{b}$ 

 $\boldsymbol{c}$ 

d

$$50q = \$$$
\_\_\_\_\_

$$10q = \$$$
\_\_\_\_\_

5. 85 cents = 
$$- \phi$$

Complete the following.

b

$$$3.75 = \underline{\hspace{1cm}}$$
 dollars and 75 cents

9. 
$$3 \text{ dollars and } 9 \text{ cents} = \underline{\hspace{1cm}} \varphi$$

Check your answers. Record your score.

Perfect score: 38

## Money

$$25+45+19=89$$
, so

$$25\phi + 45\phi + 19\phi =$$
\_\_\_\_\_

$$1207 - 483 = 724$$
, so

#### Add or subtract.

$$4 \times 19 = 76$$
, so

$$46 \times 324 = 14904$$
, so  $46 \times $3.24 =$ 

To find a product such as  $4 \times 19$ ¢ or  $46 \times $3.24$ , multiply as usual.

Include either a ¢ (or a \$ and a decimal point) in the product. Make sure there are two digits to the right of the decimal point in the product.

#### Multiply.

Solve each problem.	
1. Mrs. Jackson purchased 4 flower pots at 18 cents each. What was the total cost of the flower pots?	1.
The total cost was	
2. Marcia made the following purchases at the grocery store: soap 13¢; fruit 27¢; soup 23¢; and bread 29¢. What was the total cost of her purchases?	2.
The total cost was	
3. A quart of motor oil sells for 80¢ at the service station and 59¢ at the discount store. What is the difference between these prices?	3.
The difference is	
4. What is the total cost of 8 spark plugs if they cost \$1.19 each?	4.
The total cost is	
5. During a four-week period, Mrs. Silver spent the following for groceries: \$27.49; \$33.14; \$29.36; and \$28.76. How much did she spend for groceries during this period?	<b>5.</b>
She spent	
<b>6.</b> It costs \$19.75 to go to Norville by train and \$16.95 by bus. What is the difference between these costs?	6.
The difference is	
7. What is the cost of 4 tires if each tire costs \$19.89?	7.
The cost is	
8. At the ball park a general admission ticket costs \$1.50 and a box seat ticket costs \$3.75. What is the difference between these costs?	8.
The difference is	
Check your answers Record your score Perfe	ct score: 8 My score:

NAME \_\_\_\_\_

#### Roman Numerals

Symbol	I	V	X	L	C
Meaning	one	five	ten	fifty	one hundred

$$II = 1 + 1 \text{ or } 2$$
  
 $XXX = 10 + 10 + 10 \text{ or } 30$ 

$$IV = 5 - 1 \text{ or } 4$$
  
  $VI = 5 + 1 \text{ or } 6$ 

$$XL = 50 - 10 \text{ or } 40$$
  
 $LX = 50 + 10 \text{ or } 60$ 

$$IX = 10 -$$
\_\_\_\_ or \_\_\_  $XC = 100 -$ \_\_\_ or \_\_\_\_

$$CCC = 100 + 100 +$$
\_\_\_\_\_ or \_\_\_\_  $CX = 100 +$ \_\_\_\_ or \_\_\_\_

$$XI = 10 + ___ or ___$$

$$CX = 100 + ____ or ____$$

Complete the following.

 $\boldsymbol{b}$ 

c

1. 
$$VII = 5 + ___ or 7$$

$$XIII = ___ + 3 \text{ or } 13$$

$$XV = 10 + ____ or 15$$

2. 
$$XVIII = 10 +$$
\_\_\_\_\_ or 18  $XXV = 20 +$ \_\_\_\_ or 25  $XXXIX =$ \_\_\_\_ + 9 or 39

$$XXV = 20 + ____ or 25$$

$$XXXIX = ___ + 9 \text{ or } 39$$

3. 
$$XLVI = ___ + 6 \text{ or } 46$$

$$LIX = 50 + ___ or 59$$

$$LXII = ___ + 2 \text{ or } 62$$

4. 
$$XCIV = ___ + 4 \text{ or } 94$$

$$XCIV =$$
\_\_\_\_\_+4 or 94  $CVII = 100 +$ \_\_\_\_ or 107  $CCL =$ \_\_\_\_+50 or 250

$$CCL = ___ + 50 \text{ or } 250$$

Complete the following as shown.

 $\alpha$ 

b

c

d

5. 
$$XVII = 17$$

Write a Roman numeral for each of the following.

c

Check your answers. Record your score.

Perfect score: 35

My score: \_\_\_\_\_

·	•
Solve each problem.  1. Cherise purchased a pair of hose for \$2.98, a skirt for \$7.95, and a blouse for \$3.19. What was the total amount of her purchases?	1.
The total amount was	
2. How much would 5 shirts cost at \$4.95 each?	2.
The shirts would cost	
3. The high temperature for the day was 76 degrees and the low temperature was 52 degrees. What is the difference between these two temperatures?	3.
The difference is degrees.	
4. A painter used 4 gallons of paint to decorate an apartment. At \$8.95 a gallon, what was the cost of the paint?	4.
The cost was	
5. The temperature at sundown was 37 degrees. It had dropped 16 degrees by midnight. What was the temperature then?	5.
The temperature at midnight was degrees.	
6. To pay for an installment purchase, Mr. Collins agreed to pay \$26.56 each month for 24 months. What is the total amount of the payments?	6.
The total amount of the payments is	
7. A suit costs \$69.88 and a sports coat costs \$29.95. What is the difference between these costs?	7.
The difference in costs is	·
8. Dawn purchased a record album for \$1.98 and some stationery for 79¢. What was the total amount of her purchases?	8.
The total amount was	
Check your answers. Record your score. Perfec	ct score: 8 My score:

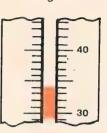
# TEST—Temperature, Money, and Roman Numerals

Record the temperature reading shown on each thermometer.

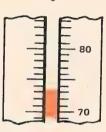
 $\alpha$ 



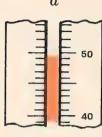
b



C



d



Add or subtract.

a

b

c

d

e

Multiply.

Complete the following as shown.

 $\boldsymbol{a}$ 

b

c

Write a Roman numeral for each of the following.

a

b

c

81

Check your answers. Record your score.

Perfect score: 25

## PRE-TEST—Division

Divide.

 $\boldsymbol{b}$ 

d

e

Check your answers. Record your score.

Perfect score: 50 My score: \_

$$6 \times 5 = 30$$
, so  $30 \div 6 = 5$ .

$$7 \times 5 = 35$$
, so  $35 \div 7 =$ \_\_\_\_\_.

Complete the following.

a

 $\boldsymbol{b}$ 

1. 
$$6 \times 6 = 36$$
, so  $36 \div 6 =$ \_\_\_\_\_.

$$7 \times 6 = 42$$
, so  $42 \div 7 =$ \_\_\_\_\_

2. 
$$6 \times 7 = 42$$
, so  $42 \div 6 =$ \_\_\_\_\_.

$$7 \times 7 = 49$$
, so  $49 \div 7 =$ \_\_\_\_\_.

3. 
$$6 \times 8 = 48$$
, so  $48 \div 6 =$ \_\_\_\_\_.

$$7 \times 8 = 56$$
, so  $56 \div 7 =$ \_\_\_\_\_

4. 
$$6 \times 9 = 54$$
, so  $54 \div 6 =$ \_\_\_\_\_.

$$7 \times 9 = 63$$
, so  $63 \div 7 =$ \_\_\_\_\_.

Divide.

 $\alpha$ 

b

c

d

 $\epsilon$ 

6 3 0

7 3 5

6 6

Check your answers. Record your score.

Perfect score: 28

Solve each problem. • 1. Mrs. Nance purchased 24 plants. She set the plants 1. out in rows of 6 plants each. How many rows of plants did she have? Mrs. Nance purchased \_\_\_\_\_ plants. She set \_\_\_\_\_ plants in each row. She had \_\_\_\_\_ rows of plants. 2. There are 28 pupils in science class. The same 2. number of pupils is seated at each of 7 tables. many pupils are at each table? \_\_ pupils are to be seated. There are \_\_\_\_tables. \_ pupils should sit at each table. 3. Pencils cost 6¢ each. Marcella has 30¢. What is the 3. greatest number of pencils she can purchase? She can purchase \_\_\_\_\_ pencils. 4. Mr. Henderson put 56 books into stacks of 7 books each. How many stacks of books did he have? He had \_\_\_\_\_ stacks of books. 5. One season a player hit 42 home runs. The baseball 5. season lasted 6 months and he hit the same number of home runs each month. How many home runs did he hit each month? He hit \_\_\_\_\_ home runs each month. 6. There are 35 days before Ed's birthday. How many weeks is it before his birthday? (7 days = 1 week)It is \_\_\_\_\_ weeks before his birthday. 7. There are 48 items to be packed. Six items can be 7. packed in each box. How many boxes are needed? boxes will be needed. Check your answers. Record your score. Perfect score:11 My score:

$$8 \times 4 = 32$$
, so  $32 \div 8 = 4$ .

$$9 \times 7 = 63$$
, so  $63 \div 9 =$ \_\_\_\_\_

Complete the following.

 $\alpha$ 

b

1. 
$$8 \times 6 = 48$$
, so  $48 \div 8 =$ \_\_\_\_\_.

$$9 \times 6 = 54$$
, so  $54 \div 9 =$ \_\_\_\_\_.

2. 
$$8 \times 7 = 56$$
, so  $56 \div 8 =$ \_\_\_\_\_.

$$9 \times 7 = 63$$
, so  $63 \div 9 =$ \_\_\_\_\_.

3. 
$$8 \times 8 = 64$$
, so  $64 \div 8 =$ \_\_\_\_.

$$9 \times 8 = 72$$
, so  $72 \div 9 =$ \_\_\_\_\_\_

4. 
$$8 \times 9 = 72$$
, so  $72 \div 8 =$ \_\_\_\_.

$$9 \times 9 = 81$$
, so  $81 \div 9 =$ \_\_\_\_\_.

Divide.

a

b

C

d

e

8 5 6

9 27

8 3 2

90

8 2 4

9 5 4

Check your answers. Record your score.

Perfect score: 28

Solve each problem.	
1. A checkerboard has 64 squares. Each of the 8 rows has the same number of squares. How many squares are in each row?	1.
There are squares in each row.	
2. Thirty-six boys came to the park to play baseball. How many teams of 9 players each could be formed?	2.
teams could be formed.	
3. Each washer load weighs 9 pounds. How many washer loads are there in 54 pounds of laundry?	3.
There are washer loads.	
4. An 8-story apartment building contains 48 apartments. There are the same number of apartments on each floor. How many apartments are there on each floor?	4.
There are apartments on each floor.	
5. Nine books weigh 18 pounds. Each book has the same weight. How much does each book weigh?	5.
Each book weighs pounds.	
6. Miss McKee can type 8 pages an hour. How long would it take her to type 24 pages?	6.
It would take hours.	
7. Mr. Cook works 8 hours a day. He worked 40 hours last week. How many days did he work last week?	7.
He worked days last week.	
8. Pencils cost 7¢ each. How many pencils can be purchased for 63¢?	8.
pencils can be purchased.	
Check your answers. Record your score. Perfe	ect score: 8 My score:

Complete the following.

b

1. 
$$9 \times 4 = 36$$
, so  $36 \div 9 =$ \_\_\_\_\_.

$$2 \times 7 = 14$$
, so  $14 \div 2 =$ \_\_\_\_\_.

2. 
$$1 \times 8 = 8$$
, so  $8 \div 1 =$ \_\_\_\_\_.

$$6 \times 7 = 42$$
, so  $42 \div 6 =$ \_\_\_\_\_.

3. 
$$7 \times 6 = 42$$
, so  $42 \div 7 =$ \_\_\_\_\_.

$$3 \times 8 = 24$$
, so  $24 \div 3 =$ \_\_\_\_\_.

4. 
$$4 \times 6 = 24$$
, so  $24 \div 4 =$ \_\_\_\_\_.

$$5 \times 0 = 0$$
, so  $0 \div 5 =$ \_\_\_\_\_.

Divide.

b

c

d

e

6 5 4

5 1 0

8 5 6

7 28

1 4

6 3 0

3 0

9 5 4

8 4 0

5 20

7 1 4

4 1 2

8 2 4

6 6

1 2

Check your answers. Record your score.

Perfect score: 48 My score: \_\_\_\_

Solve each problem.	
1. There are 45 school days left before vacation. There are 5 school days each week. How many weeks are left before vacation?	1.
There are weeks left.	
2. There are 35 seats in Mrs. Champney's room. The seats are arranged in 7 rows with the same number in each row. How many seats are there in each row?	2.
There are seats in each row.	
3. Diane bought 21 feet of material. How many yards of material did she buy? (3 feet $= 1$ yard)	3.
Diane bought yards of material.	
4. Forty-eight cars are parked in a parking lot. The cars are parked in 6 rows with the same number in each row. How many cars are parked in each row?	4.
cars are parked in each row.	
5. There are 36 seats on a bus and 4 seats per row. How many rows of seats are there on the bus?	5.
There are rows of seats on the bus.	
6. Mr. Woods works a 6-day week. He works 54 hours each week and the same number of hours each day. How many hours does he work each day?	6.
He works hours each day.	
7. It takes 9 minutes to assemble a certain item. How many items can be assembled in 54 minutes?	7.
items can be assembled.	
8. There are 32 girls in a relay race. Four run on each team. How many teams are there?	8.
There are teams.	
Check your answers. Record your score. Perfe	ct score: 8 My score:

## TEST—Division

Divide.

 $\alpha$ 

 $\boldsymbol{b}$ 

c

d

e

5 1 5

20

6 4 8

981

1 1

3 3

8 72

7 63

4 3 2

7 4 2

2 4

5 5

5 2 5

6 3 6

9 9

2 8

2 12

8 0

1 3

4 28

6 2 4

1 5

8 3 2

4 2 4

1 7

6 1 2

7 7

9 27

4 1 6

2 16

3 21

1 9

7 2 1

5 4 5

9 4 5

6 0

4 0

3 2 7

7 3 5

8 64

Check your answers. Record your score.

Perfect score: 50 My score: \_\_\_

## PRE-TEST—Division

Divide.

 $\alpha$ 

b

 $\boldsymbol{c}$ 

d

1. 3 26

5 4 7

6 4 9

8 6 2

9 77

2. 2 28

4 4 8

3 9 3

7 8 4

6 9 6

3. 5 6 7

8 93

9 9 7

6 8 7

7 9 7

4. 3 186

4 236

7 161

9 4 2 5

8 6 1 2

5. 3 3 6 9

4 8 4 0

2 9 6 4

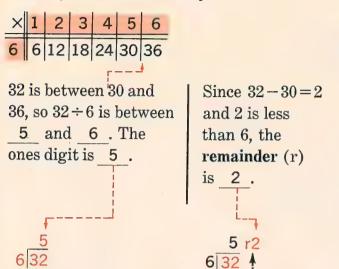
5 6 9 6

7 8 9 8

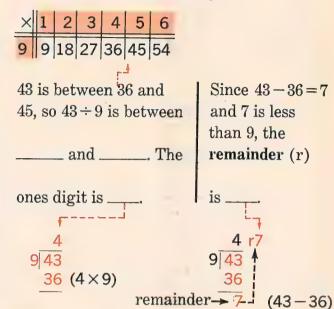
Check your answers. Record your score.

Perfect score: 25 My score:

Study how to divide 32 by 6.



Study how to divide 43 by 9.



Divide.

a

 $30 (5 \times 6)$ 

 $\boldsymbol{b}$ 

remainder  $\rightarrow 2$  (32-30)

.

đ

e

1. 5 2 7

8 4 7

2 17

9 4 6

6 38

2. 7 6 1

9 6 7

5 4 9

3 2 3

8 78

3. 4 3 8

6 4 5

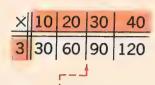
8 63

2 19

7 38

Solve each problem.	
1. How many 4-inch strips can be cut from a piece of ribbon that is 15 inches long? How much ribbon will be left?	1.
strips can be cut.	
Ainch piece of ribbon will be left.	
2. Dale has 33¢. Pencils cost 5¢ each. What is the greatest number of pencils that he can buy? How much money will he have left?	2.
He can buy pencils.	
He will have¢ left.	
3. Denny has a board that is 68 inches long. How many 9-inch pieces can he cut from this board? What length of board will be left?	3.
pieces can be cut.	
Ainch board will be left.	
4. A water tank contains 28 gallons. How many 5-gallon buckets can be filled by using the water in the tank? How many gallons will be left?	4.
buckets could be filled.	
gallons will be left.	
5. It takes 8 minutes to assemble a doodad. How many doodads can be assembled in 60 minutes? How much time would be left to partially assemble another doodad?	5.
doodads could be assembled.	
minutes will be left.	
Check your answers. Record your score. Perfec	t score: 10 My score:

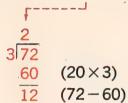
Study how to divide 72 by 3.



72 is between 60 and 90, so

72÷3 is between 20 and 30.

The tens digit is 2.





 $4 \times 3 = 12$ , so the ones

digit is \_\_\_\_

24 3|72

12

12 (4×3)

remainder  $\rightarrow 0$  (12-12)

Divide.

 $\alpha$ 

 $\boldsymbol{b}$ 

*c* .

.

1. 2 26

4 4 8

5 5 5

3 9 6

4 8 8

2. 4 4 7

6 6 9

3 6 5

7 9 6

8 9 9

3. 7 9 1

9 9 6

3 8 7

8 9 7

4 9 2

Check your answers. Record your score.

Perfect score: 15

Solve each problem.	
1. Eighty-four pupils are to be separated into 6 groups with the same number in each group. How many pupils will be in each group?	1.
pupils will be in each group.	
2. There are 94 grapefruit in a crate. How many bags of 6 grapefruit each can be filled by using the grapefruit from 1 crate? How many grapefruit will be left over?	2.
bags can be filled.	
grapefruit will be left over.	
3. Mr. Littles' lot is 51 feet wide. What is the width of the lot in yards? (3 feet $= 1$ yard)	3.
The lot is yards wide.	
4. There are 96 fluid ounces of fruit punch in a large container. How many 7-ounce glasses can be filled by using the punch in the container? How many fluid ounces of punch will be left over?	4.
glasses can be filled.	
fluid ounces will be left over.	·
5. There are 96 toys in a case. Each case contains 8 boxes with the same number of toys in each box. How many toys are in each box?	5.
There are toys in each box.	
<b>6.</b> How many 4-foot pieces of rope can be cut from a rope that is 50 feet long? How much rope will be left over?	6.
pieces of rope can be cut.	
Afoot piece of rope will be left over.	
Check your answers. Record your score. Perfe	ect score: 9 My score:

NAME \_\_\_\_\_

## Division

Divide.

 $\dot{a}$ 

 $\boldsymbol{b}$ 

c

d

e

7 6 7

9 8 5

8 6 9

3 3 6

4 4 4

3 9 3

4 8 4

6 9 6

8 9 6

7 98

990

5 5 7

8 9 9

2 8 5

3 6 5

5 6 7

6 9 7

4 9 4

7 8 9

Check your answers. Record your score.

Perfect score: 25

Problems	
Solve each problem.	
1. Suppose you travel the same distance each hour. How many miles must you travel each hour in order to travel 98 miles in 2 hours?	1.
You must travel miles each hour.	
2. Mr. Mitchell's car used 8 gallons of gasoline in traveling 96 miles. Assume that the same distance was traveled for each gallon. How many miles were traveled for each gallon of gasoline?	2.
miles were traveled for each gallon.	
3. Bert has 65 pop bottles. How many 6-bottle cartons can he fill? How many bottles will be left over?	3.
He can fill cartons.	
There will be bottles left over.	
4. Ninety-eight pupils were separated into 7 groups. There was the same number in each group. How many pupils were in each group?	4.
pupils were in each group.	
5. Vince sold the same number of papers each hour for 3 hours. He sold 69 papers in all. How many papers did he sell each hour?	5.
He sold papers each hour.	
<b>6.</b> Steve has 87 cents. What is the greatest number of nickels he could have? What is the least number of pennies that he could have?	6.
He could have at most nickels.	
He will have at least pennies.	
7. A case of 72 toys has 6 boxes inside. There are the same number of toys in each box. How many toys are in each box?	7.
There are toys in each box.	
Check your answers. Record your score. Perfe	ct score: 9 My score:

Study how to divide 263 by 5.

Since  $100 \times 5 = 500$  and 500 is greater than 263, there is no hundreds digit.



×	10	20	30	40	50	60
5	50	100	150	200	250	300

263 is between 250 and 300.

and \_\_\_\_\_. The

tens digit is \_\_\_ 5 263

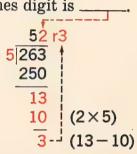
250

13 is between 10 and 15.

 $13 \div 5$  is between \_\_\_\_\_

and \_\_\_\_\_. The

ones digit is \_\_\_\_ 5 263



Divide.

 $\boldsymbol{b}$ 

 $(50 \times 5)$ 

(263 - 250)

1. 4 2 4 8

6 3 6 6

3 189

7 266

8 472

2 1 2 1

5 3 0 8

6 3 7 4

4 3 4 1

9 4 7 9

7 3 7 8

5 4 7 3

Check your answers. Record your score.

Perfect score: 15



Solve each problem.

	1.	A truc	k dri	iver tı	caveled	from	Chicago	to St.	Louis
in	6	hours.	The	same	distan	ce was	s travele	d each	hour.
$\mathbf{H}$	ои	many	mile	s were	e trave	led eac	ch hour?		

\_\_\_\_\_ miles were traveled each hour.

2. A bus left New York City and arrived in Baltimore 4 hours later. The bus traveled the same distance each hour. How many miles were traveled each hour?

\_\_\_\_ miles were traveled each hour.

3. Suppose the same distance is traveled each hour. How many miles must be traveled each hour to go from Los Angeles to San Francisco in 8 hours?

\_\_\_\_ miles must be traveled each hour.

4. Mr. Jefferson plans to drive from Los Angeles to Phoenix in 7 hours. How many miles must he travel each hour if he travels the same distance each hour?

He must travel \_\_\_\_\_ miles each hour.

5. Suppose the same distance is traveled each hour. How many miles must be traveled each hour to go from Chicago to Pittsburgh in 9 hours?

\_\_\_\_ miles must be traveled each hour.

Check your answers. Record your score.

1.

2.

3.

4.

5.

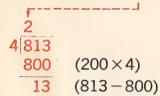
Study how to divide 813 by 4.



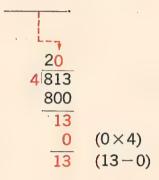
813 is between 800 and 1200, so  $813 \div 4$  is between

\_\_\_\_ and \_\_\_\_\_. The

hundreds digit is \_\_



Since  $10 \times 4 = 40$  and 40 is greater than 13, the tens digit is



13 is between 12 and 16, so  $13 \div 4$  is between

\_\_\_\_\_ and \_\_\_\_. The

Divide.

 $\alpha$ 

1. 2 4 6 8

b

4 4 7 2

 $\boldsymbol{c}$ 

3 609

d

5 5 8 5

e

7 8 8 2

6 7 9 4

9 9 7 9

2 987

5 5 9 3

Check your answers. Record your score.

Perfect score: 15

Solve each problem.	1.
1. Mrs. Steel needs 960 trading stamps to fill a book. These stamps will fill 8 pages with the same number of stamps on each page. How many stamps are needed to fill each page?	1.
stamps are needed to fill each page.	
2. There are 576 pencils in 4 cases. There are the same number of pencils in each case. How many pencils are in each case?	2.
There are pencils in each case.	
3. There are 532 apples in all. How many sacks of 5 apples each can be filled? How many apples will be left over?	3.
sacks can be filled.	
apples will be left over.	
4. At a factory, 968 items were manufactured during an 8-hour shift. The same number was manufactured each hour. How many items were manufactured each hour?	4.
items were manufactured each hour.	
5. The Chesapeake Bridge is 540 feet long. It consists of 4 sections of the same length. How long is each section?	5.
Each section is feet long.	
<b>6.</b> A full load for a dry cleaning machine is 5 suits. There are 624 suits to be cleaned. How many full loads will there be? How many suits will be in the partial load?	6.
There will be full loads.	
There will be suits in the partial load.	
7. A carpenter uses 5 nails to shingle one square foot of roof. At that rate, how many square feet of roof could be shingled by using 750 nails?	7.
square feet could be shingled.	
Check your answers. Record your score. Perfe	ect score: 9 My score:

Divide.

 $\boldsymbol{b}$ 

d

1. 2 1 2 6

6 486

3 249

7 553

8 6 2 4

2. 5 4 7 3

4 3 5 7

9 758

6 5 2 5

3 269

3. 3 6 9 3

2 8 1 6

4 8 5 6

5 9 2 5

7 791

4. 9 9 6 9

6 797

8 953

7 8 9 9

5 869

Check your answers. Record your score. Perfect score: 20

My score: \_\_\_\_\_

	•
Solve each problem.	I - C
1. A certain rocket uses 945 pounds of fuel in 9 seconds during lift off. The same amount of fuel is used each second. How many pounds of fuel are used each second?	1.
pounds of fuel are used each second.	
2. A team for a relay race consists of 4 members who run the same distance. How far would each member run in an 880-yard relay?	2.
Each team member would run yards.	
3. There are 435 folding chairs in all. How many rows of 9 chairs each can be formed? How many chairs will be left over?	3.
rows can be formed.	
chairs will be left over.	
4. The weight of a freight shipment is 920 pounds. Each of the 8 boxes in the shipment has the same weight. What is the weight of each box?	4.
The weight of each box is pounds.	
5. A man's weight on earth is about 6 times his weight on the moon. How much would a man who weighs 180 pounds on earth weigh on the moon?	5.
He would weigh pounds on the moon.	
6. There are 627 items to be packed. The items are to be packed 6 to a box. How many boxes can be filled? How many items will be in the partially filled box?	6.
boxes can be filled.	
items will be in the partially filled box.	
7. The total weight of 4 men who play for the Bears' football team is 864 pounds. Suppose each player has the same weight. What would each player weigh?	7.
Each player would weigh pounds.	
•	ct score: 9 My score:

## TEST—Division

Divide.

a

 $\boldsymbol{b}$ 

 $\boldsymbol{c}$ 

d

'e

1. 4 2 6

6 3 9

7 68

888

2 8 6

2. 5 9 0

6 78

3 68

4 8 7

8 9 8

3. 2 1 0 4

6 2 4 6

3 2 1 9

5 285

8 672

4. 4 3 6 3

3 2 7 8

5 427

9 627

8 4 6 5

5. 9 981

4 8 9 2

7 9 5 2

4 8 4 3

8 986

Check your answers. Record your score.

Perfect score: 25

## PRE-TEST—Division

Divide.

a

b

d

1. 3 2493

5 4 5 2 5

8 4893

6 4257

2. 4 8 4 0 8

9 9 0 8 1

7 9 1 4 7

5 6724

3. 2 1 2 6 8 4

4 3 2 8 2 4

6 24163

9 17653

4. 5 5 6 5 0 5

3 3 6 9 2 7

7 8 4 3 5 9

8 9 4 7 2 5

Check your answers. Record your score.

Perfect score: 16 My score: \_

6 5247

Since  $1000 \times 6 = 6000$  and 6000 is greater than 5247, there is no thousands digit.

800×6=\_\_\_\_

87 6 5247 4800 447

420

27

70×6=\_\_\_\_

4×6=\_\_\_\_

Divide.

 $\alpha$ 

 $\boldsymbol{b}$ 

C

d

e

1. 2 1 2 4 8

7 4 2 9 1

3 2580

6 3 3 4 8

5 3745

2. 8 6 4 8 3

9 8 1 7 4

4 2 5 6 9

2 1983

7 3 4 9 0

3. 3 2 9 2 2

6 5 2 7 7

5 4350

8 6 5 4 3

9 6 2 5 5

Check your answers. Record your score.

Perfect score: 15

2 4 9527 8000 1527 2000×4= 9527-8000=	$ \begin{array}{r}     23 \\     4   9527 \\     8000 \\ \hline     1527 \\     \underline{1200} \\     327 \end{array} $ $ 300 \times 4 = \phantom{00000000000000000000000000000000000$	238 4 9527 8000 1527 1200 327 320 7	2381 r3 4 9527 8000 1527 1200 327 320 7 4 3
	• .	327-320=	1×4=

7-4=\_\_\_

Divide.

 $\boldsymbol{a}$ 

· **b** 

d

e

3 9642

8 8 6 3 2

5 7845

9 9 8 1 9

Divide.

c

d e

1. 7 3 5 6 3 2 1 6 8 2

6 4 9 1 6 5 4 5 0 5 3 2 3 0 1

2. 8 1 6 4 7 9 1 1 8 6 5 3 8 5 4 4 3 5 4 7 7 6 4 6 6

 3.
 3
 6
 3
 9
 6
 7
 2
 5
 4
 8
 2
 5
 6
 9
 9
 6
 2
 1
 5
 8
 7
 5
 5

4. 7 7 8 4 5 8 8 9 1 5 2 5 0 0 7 6 9 4 3 7 8 9 7 8 5

Check your answers. Record your score. Perfect score: 20

Problems	
Solve each problem.  1. The Longs plan to travel 1,156 miles over a 4-day period. Suppose they travel the same distance each day. How many miles will they travel each day?	1.
They will travel miles each day.	
2. The Thompsons drove 3,524 miles in 4 months. They drove the same number of miles each month. How many miles did they drive each month?	2.
They drove miles each month.	
3. The Thompsons' car cost \$2,112. They paid the same amount in each of 3 years. How much did they pay each year?	3.
They paid \$ each year.	
4. Each box can hold 8 cans. There are 1,539 cans to be packed. How many boxes will be filled? How many cans will be in the partially filled box?	4.
boxes can be filled.	
There will be cans in the partially filled box.	
5. At St. Thomas School there are 4 grades and 4,196 pupils. There are the same number of pupils in each grade. How many pupils are in each grade?	5.
There are pupils in each grade.	
6. There are 5,280 feet in a mile and 3 feet in a yard. How many yards are there in a mile?	6.
There are yards in a mile.	
7. A fuel tank contains 1,050 gallons of fuel oil. The fuel oil is used at the rate of 9 gallons a day. For how many full days will this supply last? How many gallons will be left over?	7.
This supply will last for full days.	
gallons of fuel oil will be left over.	·
· · · · · · · · · · · · · · · · · · ·	ect score: 9 My score:

3 23527

Since  $10000 \times 3 =$ 30000 and 30000 is greater than 23527, there is no ten thousands digit.

	7
	3 23527
	21000
	2527
7000 × 3 =	

Divide.

a

b

C

d

5 39285

7 5 3 4 2 4

3 26736

9 17653

4 2 5 4 3 5

6 5 6 4 2 9

Check your answers. Record your score.

Perfect score: 8

111

1 5 67857 50000 17857	13 5 67857 50000 17857 15000	135 5 67857 50000 17857 15000	1357 5 67857 50000 17857 15000	13571 r2 5 67857 50000 17857 15000
10000 × 5 =	2857	2857 2500	2857 2500	2857 2500
67857 - 50000 = 3000 × 5 =		357	357 350	357 350
17857 — 15000	)= 500×5=	<u>-</u>	7	7 <u>5</u> 2
	2857 — 25	500 = 70 × 5	<u> </u>	
		357 – 3		1×5=
				7-5=

Divide.

 $\boldsymbol{a}$ 

 $\boldsymbol{b}$ 

 $\boldsymbol{c}$ 

d

6 8 4 3 7 2

2 8 6 7 4 2

5 73885

Divide.

a

d

6 3 6 0 7 2

3 27575

4 3 4 7 5 1

2 1 3 7 5 7

8 8 1 6 2 4

5 6 5 1 7 5

9 9 1 4 7 8

7 8 6 5 8 2

8 9 5 4 7 5

Check your answers. Record your score. Perfect score: 12 My score:

Solve each problem.	
1. A factory produced 17,549 transistors during a 7-hour shift. The same number was produced each hour. How many were produced each hour?	<b>1.</b> .
transistors were produced each hour.	
2. Six items can be packed in each case. How many cases will be filled in packing 10,275 items? How many items will be in the partially filled case?	2.
cases will be filled.	
items will be in the partially filled case.	
3. There were 44,352 patients treated at the hospital during the last 2 months. Suppose the same number of patients were treated each month. How many were treated each month?	3.
There were patients treated each month.	
4. A truck weighs 14,260 pounds. Its weight is distributed evenly to each of its 4 wheels. How much weight is there for each wheel?	4.
There are pounds for each wheel.	
5. Last year the Tri-State Fence Company erected 53,248 feet of fence. The fencing comes in 6-foot sections. How many complete sections were erected? How many feet from another section were used?	5.
complete sections were erected.	
feet from another section were used.	
6. A salesman traveled 12,480 miles during a 6-month period. Suppose the same distance was traveled each month. How many miles were traveled each month?	6.
miles were traveled each month.	
7. In our district there are 35,098 school children. There are as many boys as girls. How many of the school children are girls?	7.
of the children are girls.	
Check your answers. Record your score. Perfe	ct score: 9 My score:

#### TEST—Division

Divide.

 $\alpha$ 

 $\boldsymbol{b}$ 

d

2 1 2 5 6 2 6 1 8 4 8 6

**2.** 7 5 4 7 8 8 3 6 4 5 5 4 3 7 8 8 6 2 4 5 3 4 3 6 7 5 1

7 8 4 4 2 5 7 6 0 5

5 5 2 5 6 0 7 9 1 8 4 7

Check your answers. Record your score. Perfect score: 20

### PRE-TEST—Multiplication and Division

Multiply or divide. Check each answer.

1. 213 ×2

2 0 1 2 3 ×3

2. 5 2 6 ×5 7654 ×6 1 4 2 3 5 ×7

3. 787 ×8 2654 ×9 15359 ×6

4. 2 1 2 6

3 6 7 9

8 9 6 4

5. 5 4 5 6 7

9 8722

6 6726

6. 4 1 3 4 5 7

7 1 2 3 4 5

5 67525

### Multiplication and Division

$$5 \times 19 = 95$$
, so  $95 \div 5 =$ \_\_\_\_\_

NAME \_\_\_\_\_

$$13 \times 7$$

$$91$$

$$91 \div 7 = 13$$
, so  $7 \times 13 =$ \_\_\_\_\_

Complete each of the following.

a

 $\boldsymbol{b}$ 

1. 
$$5 \times 117 = 585$$
, so  $585 \div 5 =$ 

$$285 \div 3 = 95$$
, so  $3 \times 95 =$ \_\_\_\_\_

2. 
$$7 \times 219 = 1533$$
, so \_\_\_\_\_\_ ÷ 7 = 219.

$$763 \div 7 = 109$$
, so  $7 \times \underline{\hspace{1cm}} = 763$ .

3. 
$$6 \times 7123 = 42738$$
, so  $42738 \div ___ = 7123$ .

$$1827 \div 9 = 203$$
, so  $203 = 1827$ .

Multiply or divide.

 $\alpha$ 

 $\boldsymbol{b}$ 

c

d

Check your answers. Record your score.

Perfect score: 18

Solve each problem. 1. During 5 school days, Charles worked 80 mathematics problems. He worked the same number of problems each day. How many problems did he work each day? He worked \_\_\_\_\_ problems each day. 2. On the kitchen floor there are 9 rows of tile and 18 2. tiles in each row. How many tiles are there on the kitchen floor? There are \_\_\_\_\_\_ tiles. 3. An 8-story apartment building is 112 feet high. 3. Each story is the same height. What is the height of each story? Each story is \_\_\_\_\_ feet high. 4. Each sheet of plasterboard weighs 45 pounds. What would be the total weight of 8 sheets? The total weight would be \_\_\_\_\_ pounds. 5. There were 14,325 cars assembled in 5 days. The 5. same number of cars were assembled each day. How many cars were assembled each day? There were \_\_\_\_\_ cars assembled each day. 6. The seating capacity of the Sports Arena is 8,560. The seats are arranged in 4 sections of the same size. How many seats are there in each section? There are \_\_\_\_\_ seats in each section. 7. The school library has 8,096 books. The same num-

There are \_\_\_\_\_\_ books along each wall.

ber of books are stored along each of the 4 walls. How

Check your answers. Record your score.

many books are along each wall?

Perfect score: 7 My score: \_

321 ×3 963	Check	900
To check $3 \times 321 = 963$ ,		3
divide 963 by 3 The answer should be	•	$\frac{3}{0}$

1243
 Check
 
$$\frac{1243}{4972}$$

 ×4
 4000

 4972
 972

 800
 172

 divide \_\_\_\_\_\_ by \_\_\_\_.
 160

 The answer should be
 12

 12
 0

Multiply. Check each answer.

321 .

Solve each problem. Check each answer.	
1. Each of the 4 members of a relay team runs 440 yards. What is the total distance the team will run?	1.
The team will run yards.	
2. Herman delivers 165 papers each day. How many papers does he deliver in a week?	2.
He delivers papers in a week.	
3. There are 125 nails in a 1-pound pack. How many nails will be in a 5-pound pack?	3.
nails will be in a 5-pound pack.	
4. It takes 1,200 trading stamps to fill a book. How many stamps will it take to fill 6 books?	4.
It will take stamps.	·
5. A contractor estimated that it would take 2,072 bricks to build each of the 4 walls of a new house. How many bricks would it take to build all 4 walls?	5.
It would takebricks.	
6. There are 7 cars on a transport truck. Each car weighs 3,650 pounds. What is the total weight of the cars?	6.
The total weight is pounds.	
7. Each car in problem 6 has a value of \$2,845. What is the total value of the cars?	7.
The total value is \$	
8. Mr. Brooks travels 1,285 miles each month. How many miles will he travel in 6 months?	8.
He will travel miles.	
Check your answers. Record your score. Perfe	ct score: 8 My score:

3 1326 1200 126 120	Check 442 ×3 1326
6	To check $1326 \div 3 = 442$ ,
6 0	multiply 442 by <u>3</u> . The answer should be
	1326

0450
_3453
5 17265
15000
13000
2265
2000
2000
265
250
<del></del>
15
15
U

Check 
$$3453$$
 $\times 5$ 
 $17265$ 

To check  $17265 \div 5 = 3453$ ,
multiply  $3453$  by \_\_\_\_\_.
The answer should be

Divide. Check each answer.

 $\alpha$ 

 $\boldsymbol{b}$ 

Check your answers. Record your score.

Perfect score: 9 My score: \_\_\_\_

Solve each problem.	
1. A plane traveled 900 miles in 2 hours. The same distance was traveled each hour. How many miles were traveled each hour?	1.
miles were traveled each hour.	
2. The school lunchroom served 840 lunches in 2 hours. The same number of lunches was served each hour. How many lunches were served each hour?	2.
lunches were served each hour.	
3. A company has 7,200 employees. There are 8 plants with the same number of employees at each plant. How many employees are at each plant?	3.
There are employees at each plant.	
4. The Ace Company is going to ship 2,811 pounds in 3 shipments. Each shipment will weigh the same. How much will each shipment weigh?	4.
Each shipment will weigh pounds.	
5. A company used 5 trucks to deliver 15,900 pounds of merchandise. Each truck carried the same amount. How many pounds were carried on each truck?	5.
pounds were carried on each truck.	
6. A voting district consists of 4 wards which have the same number of voters. There are 29,676 voters in the district. How many voters are in each ward?	6.
There are voters in each ward.	
7. At the soup factory, 10,896 cans are filled in 3 hours. The same number of cans are filled each hour. How many cans are filled each hour?	7.
cans are filled each hour.	
Check your answers Record your score. Perfe	ct score: 7 My score:

2636 r5		· ·
7 18457	Check 2636	To check $18457 \div 7 = 2636 \text{ r5}$ .
14000	×7	
4457	18452	multiply by 7.
4200	+5	
257	18457	Then add to this product.
210	10-137	
47		The answer should be
42		
5		

Divide. Check each answer.

a

 $\boldsymbol{b}$ 

 $\boldsymbol{c}$ 

5 6 7 9

4 8 9 7

6 7855

7 9 4 6 3

8 96547

123

6 9 7 8 5 5

Check your answers. Record your score.

Perfect score: 9

<b>Problems</b>	P	ro	b	e	m	S
-----------------	---	----	---	---	---	---

Solve each problem. Check each answer.	
1. A marching band has 126 members. How many rows of 8 members each can be formed? How many members will be left?	1.
They can form rows of 8 members each.	
There will be members left.	
2. A certain airliner has 108 seats. The seats are arranged in 5-seat rows. How many 5-seat rows are there? How many other seats are there?	2.
There are 5-seat rows.	
There are other seats.	
3. There were 1,006 Girl Scouts in a parade. They marched in rows of 8 each. How many full rows were there? How many were in the partial row?	3.
There were full rows.	
There were scouts in the partial row.	
4. There will be 1,012 people at a large banquet. Six people are to be seated at each table. How many tables will be filled? How many people will be seated at the partially filled table?	4.
tables will be filled.	1
people will be at the partially filled table.	
5. There were 10,425 bottles of root beer purchased yesterday. How many 6-bottle cartons can be filled? How many bottles would be left over?	<b>5.</b>
cartons could be filled.	
bottles would be left over.	
Check your answers. Record your score. Perfec	t score: 10 My score:

Divide. Check each answer.

1. 3 2 6

4 8 9

6 7 2

2. 5 265

7 389

8 9 5 7

3. 2 1 9 5 5

9 6 7 8 6

5 6 7 5 3

4. 7 1 7 3 4 5

6 48576

8 9 6 7 5 4

Check your answers. Record your score.

125

Perfect score: 12 My score: \_\_\_\_

P	ro	h	6	m	c
	O	UI	ı	ш	э

Solve each problem.	
1. Marge has 75 cents. What is the greatest number of 6-cent stamps she can purchase? How much money will she have left?	1.
She can purchase stamps.	
She will have cents left.	
2. It takes Jesse 2 hours to deliver 126 papers. Suppose he delivers the same number of papers each hour. How many papers can he deliver in 1 hour?	2.
He can deliver papers in 1 hour.	
3. How many 6-foot tables can be placed along one wall of a lunchroom that is 220 feet long? How much space would be unused?	3.
tables can be placed along the wall.	
There will be feet of unused space.	
4. Each member of a relay team runs the same distance. How far would each of the 4 members of a mile relay team run? (1 mile = $1,760$ yards)	4.
Each member would run yards.	
5. An ocean liner can make a 2,756-mile voyage in 4 days. Suppose the same distance is traveled each day. How many miles would be traveled each day?	<b>5.</b>
miles would be traveled each day.	
6. A weather balloon rises at a rate of 8 feet per second. How many seconds would it take the balloon to rise 10,000 feet?	6.
It would takeseconds.	
7. There are 2 identical sections of bleachers in the football stadium. The total seating capacity of these sections is 29,856. How many people can be seated in each section?	7.
people can be seated in each section.	
Check your answers. Record your score. Perfe	ct score: 9 My score:

### TEST—Multiplication and Division

Complete each of the following.

0

1. 
$$4 \times 63 = 252$$
, so  $252 \div 4 =$ \_\_\_\_\_.

 $5 \times 235 = 1175$ , so \_\_\_\_\_\_ ÷ 5 = 235.

 $\boldsymbol{b}$ 

2. 
$$72 \div 3 = 24$$
, so  $3 \times 24 =$ \_\_\_\_\_.

 $9 \times 1243 = 11187$ , so  $11187 \div ___ = 1243$ .

3. 
$$216 \div 6 = 36$$
, so  $36 = 216$ .

 $6455 \div 5 = 1291$ , so  $5 \times \underline{\hspace{1cm}} = 6455$ .

4. 
$$1200 \div 8 = 150$$
, so  $8 \times \underline{\hspace{1cm}} = 1200$ .

 $5 \times 265 = 1325$ , so  $1325 \div 5 =$ \_\_\_\_\_.

Multiply or divide. Check each answer.

0

127

#### **PRE-TEST**—Measurement

Complete the following.

a

b

3. 
$$4 da. =$$
\_\_\_\_hr.

$$6 \, \text{ft.} = \underline{\hspace{1cm}} \, \text{yd.}$$

4. 
$$3 \text{ yd.} =$$
\_\_\_\_ft.

5. 
$$6 \text{ ft.} = \underline{\hspace{1cm}} \text{in.}$$

$$6 \text{ pt.} = \underline{\phantom{0}} c.$$

7. 
$$4 c. = ___ pt.$$

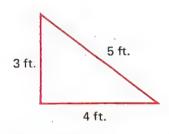
$$8 \text{ pt.} = \underline{\phantom{0}} \text{qt.}$$

$$10 c. = ___ pt.$$

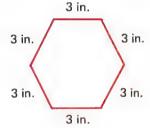
Find the perimeter of each figure below.

 $\boldsymbol{a}$ 

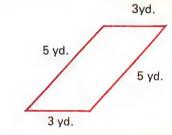
9.



b



C

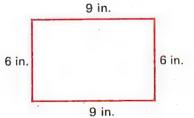


\_\_\_\_\_ feet

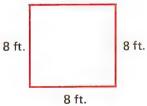
\_\_\_\_\_ inches

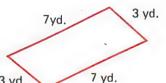
\_\_\_\_\_yards

10.



8 ft.





\_\_\_\_\_inches

\_\_\_\_\_ feet

\_\_\_\_\_yards

Check your answers. Record your score.

Perfect score: 22

#### Measurement

16 ounces (oz.) = 1 pound (lb.) 2000 lb. = 1 ton (T.)

Since 1 lb. = 16 oz., 
$$(5 \times 1)$$
 lb. =  $(5 \times 16)$  oz.

$$5 \text{ lb.} = 80 \text{ oz.}$$

Since 1 hr. = 60 min., 
$$(3 \times 1)$$
 hr. =  $(3 \times 60)$  min.

$$3 \, hr. = \underline{\qquad} min.$$

Complete the following.

a

1. 
$$2 \text{ lb.} = \underline{\hspace{1cm}} \text{ oz.}$$

2. 
$$2 \text{ T.} = \underline{\hspace{1cm}}$$
 lb.

3. 
$$7 \text{ lb.} = \underline{\hspace{1cm}} \text{oz.}$$

4. 
$$2 \text{ hr.} = \underline{\qquad} \text{min.}$$

5. 
$$2 da. =$$
\_\_\_\_\_hr.

7. 
$$12 \text{ hr.} = \underline{\qquad} \text{ min.}$$

 $\boldsymbol{b}$ 

$$6 \text{ T.} = \underline{\hspace{1cm}}$$
 lb.

$$5 \text{ T.} = \underline{\hspace{1cm}} \text{lb.}$$

· ·	
Solve each problem.	
1. Mrs. Turner purchased a 5-pound roast. How many ounces did the roast weigh?	1.
The roast weighed ounces.	
2. A runner ran the mile in 4 minutes. How many seconds did it take him to run the mile?	2.
He ran the mile in seconds.	
3. The double feature at the Bijou Theater lasted 3 hours. How many minutes did the double feature last?	3.
The double feature lasted minutes.	
4. There are 30 tons of merchandise on a freight car. How many pounds of merchandise are on the freight car?	4.
There are pounds of merchandise.	
5. How many hours are there in a week?	5.
There are hours in a week.	
6. Mrs. Adamson purchased a 4-pound box of detergent. How many ounces of detergent did she purchase?	6.
She purchased ounces of detergent.	·
7. The load limit on a small bridge is 8 tons. What is the load limit in pounds?	7.
The load limit is pounds.	
8. A skin diver has learned to hold his breath for 2 minutes. How many seconds can he hold his breath?	8.
He can hold his breath for seconds.	
9. The ball game lasted 2 hours. How long did the game last in minutes?	9.
The game lasted minutes.	
Check your answers. Record your score. Perfe	ct score: 9 My score:

#### Measurement

Since 3 ft. = 1 yd.,  
9 ft. = 
$$(9 \div 3)$$
 yd.

$$9 \, \text{ft.} = 3 \, \text{yd.}$$

 $\boldsymbol{a}$ 

Since 1 ft. = 12 in.,  

$$(2\times1)$$
 ft. =  $(2\times12)$  in.

Complete the following.

 $\boldsymbol{b}$ 

1. 
$$3 \, \text{ft.} = \underline{\hspace{1cm}} \text{in.}$$

$$12 \, \text{ft.} = \underline{\hspace{1cm}} \, \text{yd.}$$

2. 
$$2 \text{ yd.} = \underline{\hspace{1cm}}$$
 in.

3. 
$$5 \text{ ft.} = \underline{\qquad} \text{in.}$$

$$7 \, \text{ft.} = \underline{\qquad} \text{in.}$$

4. 
$$12 \text{ yd.} =$$
\_\_\_\_\_ft.

6. 
$$7 \text{ yd.} =$$
\_\_\_\_ft.

8. 
$$15 \text{ yd.} =$$
\_\_\_\_\_ ft.

131

Check your answers. Record your score.

Perfect score: 24

My score: \_\_\_\_

P	ro	h	ems
	ıv		

·	
Solve each problem.	
1. Mr. Jefferson is 6 feet tall. What is his height in inches?	1.
His height is inches.	· .
2. In baseball the distance between home plate and first base is 90 feet. What is this distance in yards?	2.
The distance is yards.	
3. Jeromy has 150 yards of kite string. How many feet of kite string does he have?	3.
He has feet of kite string.	
4. A trench is 2 yards deep. What is the depth of the trench in inches?	4.
The trench is inches deep.	
5. There are 5,280 feet in a mile. How many yards are there in a mile?	5.
There are yards in a mile.	
6. One of the pro quarterbacks can throw a football 60 yards. How many feet can he throw the football?	6.
He can throw the football feet.	
7. Marcena has 8 feet of ribbon. How many inches of ribbon does she have?	7.
She has inches of ribbon.	
8. A rope is 3 yards long. What is the length of the rope in inches?	8.
The rope is inches long.	
9. A certain car is 6 feet wide. What is the width of the car in inches?	9.
The car is inches wide.	
Check your answers. Record your score. Perfe	ct score: 9 My score:

#### Measurement

Since 1 qt. = 2 pt.,  

$$(6 \times 1)$$
 qt. =  $(6 \times 2)$  pt.

$$6 \, \text{qt.} = \underline{\hspace{1cm}} \, \text{pt.}$$

Since 4 qt. = 1 gal.,  

$$12 \text{ qt.} = (12 \div 4) \text{ gal.}$$

Complete the following.

 $\alpha$ 

b

1. 
$$6 c. = ___ pt.$$

$$12 \text{ qt.} =$$
\_\_\_\_\_pt.

$$6 \text{ pt.} = \underline{\phantom{0}} c.$$

4. 
$$8 \text{ pt.} = \underline{\phantom{0}} c.$$

5. 
$$10 \text{ qt.} =$$
\_\_\_\_\_ pt.

$$18 c. = ____ pt.$$

9. 
$$10 \text{ pt.} = \underline{\phantom{0}} c.$$

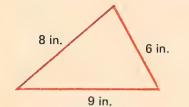
Check your answers. Record your score.

Perfect score: 24

Solve each problem.	
1. There are 6 pints of lemonade in a picnic cooler. How many 1-cup containers can be filled by using the lemonade in the cooler?	1.
containers can be filled.	
2. The capacity of the cooling system on a certain car is 16 quarts. What is the capacity in gallons?	2.
The capacity is gallons.	
3. What is the capacity in pints of the cooling system in problem 2?	3.
The capacity is pints.	
4. The milkman delivered 376 quarts of milk this morning. How many gallons of milk was this?	4.
It was gallons of milk.	
5. How many quarts of water would be needed to fill a 10-gallon aquarium?	5.
quarts would be needed.	
6. The lunchroom served 168 pints of milk at lunch. How many quarts of milk was this?	6.
It was quarts of milk.	
7. There are 12 cups of liquid in a container. How many 1-pint jars can be filled by using the liquid in the container?	7.
jars can be filled.	
8. There are 6 pints of bleach in a container. How many quarts of bleach are in the container?	8.
There are quarts of bleach in the container.	
Check your answers. Record your score. Perfe	ct score: 8 My score:

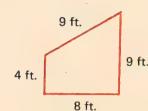
#### Perimeter

The distance around a figure is called its perimeter.



$$p = 8 + 6 + 9$$

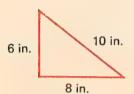
The perimeter is 23 inches.



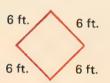
The perimeter is \_\_\_\_\_ feet.

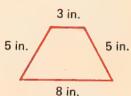
Find the perimeter of each figure below.

1.



 $\boldsymbol{b}$ 



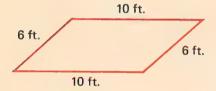


inches

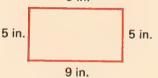


inches

2.

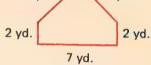


9 in.



inches

5 yd. 5 yd.



3.



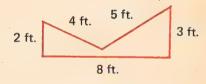


yards

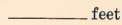


feet

2 ft.

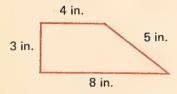


\_ inches



\_ feet

4.



6 yd. 3 yd. 6 yd.

\_ inches

feet

10 ft.

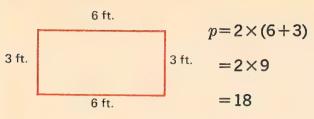
\_ yards

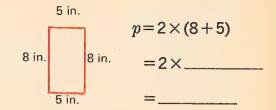
Check your answers. Record your score.

Perfect score: 12

Solve each problem.	
1. A baseball diamond is 90 feet on each side. What is the perimeter of a baseball diamond?	1.
The perimeter is feet.	
2. Mrs. Gunter has a triangular-shaped flower bed. The sides are 8 feet, 7 feet, and 9 feet. How many feet of edging will she need to go around the flower bed?	2.
She will need feet of edging.	
3. Mr. Sims wants to build a fence around his lot. The sides of his lot are 50 feet, 120 feet, 120 feet, and 80 feet. How many feet of fencing will he need?	3.
He will need feet of fencing.	
4. A large tabletop has 6 sides. Each side is 3 feet long. How many feet of crepe paper will be needed to make a border for the edges of the tabletop?	4.
feet of crepe paper will be needed.	
5. The length of the sides of a playing field are 150 yards, 80 yards, 150 yards and 80 yards. What is the perimeter of the field?	5.
The perimeter is yards.	
6. The edges of a triangular piece of poster board are 32 inches, 28 inches, and 36 inches. What is the perimeter of the piece of poster board?	6.
The perimeter is inches.	
7. The sides of a picture frame are 8 inches, 12 inches, 8 inches, and 12 inches. What is the perimeter of the picture frame?	7.
The perimeter is inches.	
	ct score: 7 My score:
Check your answers. Record your score. Perfect	ct score. I Mry score.

#### Perimeter





The perimeter is \_\_\_\_18\_\_\_ feet.

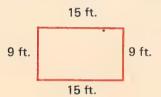
The perimeter is \_\_\_\_\_ inches.

To determine the perimeter of a rectangle,

- (1) find the sum of the measures of the length and width and
- (2) multiply this sum by 2.

Find the perimeter of each rectangle below.

1.

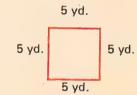


 $\alpha$ 

 $\boldsymbol{b}$ 



 $\boldsymbol{c}$ 

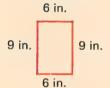


feet

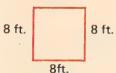
inches

\_ yards

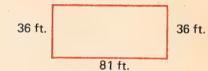
2.



8 ft.



81 ft.

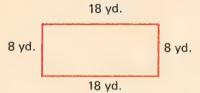


\_ inches

feet

feet

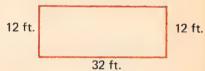
3.



12 in.



32 ft.

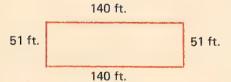


\_ yards

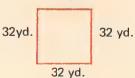
inches

feet

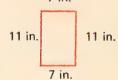
4.



32 yd.



7 in.



\_\_\_\_feet

\_ vards

\_ inches

Check your answers. Record your score.

Perfect score: 12

My score: \_

Problems	
Solve each problem.	
1. Mr. Champney's garden is shaped like a rectangle. The rectangle is 24 feet long and 16 feet wide. What is the perimeter of his garden?	1.
The perimeter of his garden is feet.	
2. A rectangular desk top is 24 inches long and 16 inches wide. What is the perimeter of the desk top?	2.
The perimeter of the desk top is inches.	
3. A flower garden is shaped like a rectangle. The length of the rectangle is 40 feet and the width is 30 feet. How many feet of edging will be needed to go around the garden?	3.
feet of edging will be needed.	
4. A rectangular window pane is 28 inches long and 24 inches wide. What is the perimeter of the window pane?	4.
The perimeter is inches.	
5. Mrs. Richardson has a rectangular-shaped mirror which is 4 feet long and 3 feet wide. How many feet of ribbon will she need to go around the edges of the mirror?	5.
She will need feet of ribbon.	
6. A rectangular picture frame is 32 inches long and 24 inches wide. What is the perimeter of the picture frame?	6.
The perimeter is inches.	
7. A football field is shaped like a rectangle. The length of the field is 360 feet and the width is 160 feet. What is the perimeter of a football field?	7.

Perfect score: 7

My score:

The perimeter is \_\_\_\_\_ feet.

Check your answers. Record your score.

#### TEST—Measurement

Complete the following.

 $\boldsymbol{a}$ 

 $\boldsymbol{b}$ 

3. 6 pt. 
$$=$$
 \_\_\_\_ qt.

$$12 \text{ ft.} = \underline{\hspace{1cm}} \text{yd.}$$

4. 
$$3 \text{ yd.} = \underline{\hspace{1cm}}$$
 in.

5. 
$$9 \text{ gt.} =$$
\_\_\_\_\_ pt.

6. 
$$4 da. =$$
\_\_\_\_hr.

$$5 \text{ yd.} =$$
\_\_\_\_ft.

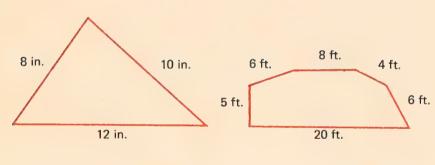
$$5 \text{ gal.} = \underline{\qquad} \text{qt.}$$

Find the perimeter of each figure below.

 $\boldsymbol{a}$ 

 $\boldsymbol{b}$ 

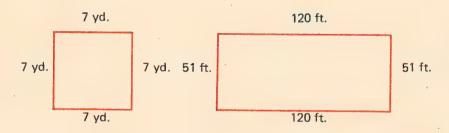
9.



\_\_\_\_\_ inches

\_\_\_\_\_feet

10.



\_\_\_\_\_yards

\_\_\_\_\_ feet

Check your answers. Record your score

Perfect score: 20

#### PRE-TEST—Review

Complete the following as indicated.

a

 $\boldsymbol{b}$ 

 $\boldsymbol{c}$ 

d

Complete the following.

 $\boldsymbol{a}$ 

$$5.3 lh = 0.7$$

$$\boldsymbol{b}$$

5. 
$$3 \text{ lb.} = \underline{\hspace{1cm}} \text{oz.}$$

$$2 \, hr. = \underline{\qquad} min.$$

6. 
$$3 \text{ ft.} = \underline{\hspace{1cm}} \text{in.}$$

$$9 \text{ ft.} = ____y \text{d.}$$

$$12 \, \text{qt.} = \underline{\qquad} \, \text{gal.}$$

Complete the following as shown.

 $\boldsymbol{a}$ 

$$\boldsymbol{b}$$

9. 
$$29 = XXIX$$

Check your answers. Record your score.

Perfect score: 30

My score: \_\_

### Addition and Subtraction

Add or subtract.

$$703$$
 $-121$ 

$$\begin{array}{c} 2727 \\ -1769 \end{array}$$

Check your answers. Record your score.

Perfect score: 54 My score:

P	ro	h	اما	m	ς
		LJ I			2

Problems	
Solve each problem.	
1. In the election for alderman, Andrews received 987 votes and McCarver received 696 votes. There were 213 votes cast for other candidates. How many votes were cast?	1.
There were votes cast.	
2. Mr. Ramirez weighs 173 pounds. His son Rico weighs 85 pounds. What is the difference between their weights?	2.
The difference is pounds.	
3. Last week in her bowling league, Mrs. Gunter made the following scores: 149; 153; and 165. What was her total score?	3.
Her total score was	
4. The air distance from Chicago to Miami is 1,188 miles and to Los Angeles 1,745 miles. How many more miles is it from Chicago to Los Angeles than from Chicago to Miami?	4.
It is miles more from Chicago to Los Angeles.	
5. There were 875 windows washed at the Baker Hotel, 734 at the Union Building, and 649 at the Civic Tower. How many windows were washed at these buildings?	5.
windows were washed.	
6. The Perrys drove their car 9,746 miles last year. The Buckleys drove their car 7,697 miles. How much farther did the Perrys drive than the Buckleys?	6.
They drove miles farther.	
7. The attendance at the Star Theater over a 3-day period was as follows: 547; 947; and 649. What was the total attendance during this period?	7.
The attendance was	
Check your answers. Record your score. Perfe	ct score: 7 My score:

### **Multiplication**

Multiply.

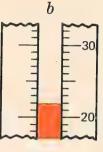
Solve each problem.	
1. A grocer used 6 cases of canned goods to build a display. There were 24 cans in each case. How many cans were used in the display?	1.
cans were used in the display.	
2. The baseball league has 8 teams with 18 boys on each team. How many boys are in the league?	2.
There are boys in the league.	
3. A gallon of paint will cover 480 square feet. How many square feet can be covered if 7 gallons of paint are used?	3.
square feet can be covered.	
4. A jet plane can travel 625 miles in one hour. At that rate, how many miles can the jet travel in 7 hours?	4.
The jet can travel miles.	
5. Mr. Anthony drives 1,535 miles each month. How many miles will he drive in 9 months?	5.
He will drive miles.	
6. Mr. Jefferson delivered 32 cases of cola to the supermarket. There are 24 bottles to a case. How many bottles of cola did he deliver?	6.
He delivered bottles of cola.	
7. The newsstand sells 1,756 magazines each month. How many magazines will be sold in 12 months?	7.
magazines will be sold.	·
8. There are 144 oranges in a crate. How many oranges are there in 112 such crates?	8.
There are oranges.	
Check your answers. Record your score. Perfe	ect score: 8 My score:

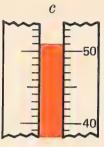
# Temperature, Money, and Roman Numerals

Record the temperature reading shown on each thermometer below.

1.







d



\_\_\_\_ degrees

\_\_\_\_\_ degrees

\_\_\_\_\_ degrees

\_\_\_\_\_ degrees

Add or subtract.

$$\boldsymbol{a}$$

b

c

d

e

Multiply.

Complete the following as shown.

a

b

$$\boldsymbol{c}$$

5. 
$$XIX = 19$$

7. 
$$27 = XXVII$$

Check your answers. Record your score.

Perfect score: 29

My score:

Problems	
Solve each problem.	
1. The high temperature for the day was 78 degrees. The low temperature was 49 degrees. What is the difference between these two temperatures?	1.
The difference is degrees.	
2. During a 3-week period Mrs. Douglas spent the following amounts on groceries: \$22.19; \$34.15; and \$27.52. How much did she spend for groceries during this period?	2.
She spent	
3. Mr. Barron is considering buying a suit for \$79.95 or a sports coat for \$28.98. What is the difference between the costs of these items?	3.
The difference is	
4. What is the total cost of 6 sport shirts at \$5.98 each?	4.
The total cost is	
5. The average noon temperature this spring was 51 degrees. The average noon temperature for this summer is expected to be 24 degrees higher. What is the expected average noon temperature for this summer? The expected average noon temperature is	5.
degrees.	
6. Pat made the following purchases at the market: bread 39¢, soup 25¢, canned peas 19¢, and salt 15¢. What was the total amount of her purchases?	6.
The total amount was	

Check your answers. Record your score.

How much money did Mrs. Saunders save?

She saved \_

The total cost is \_

pair?

7. Mrs. Saunders purchased a dress that was on sale

8. What is the total cost of 6 pairs of socks at 79¢ a

for \$19.95. The regular price of the dress was \$28.67.

Perfect score: 8 My score:

7.

8.

Divide.

 $\boldsymbol{b}$ 

d

1. 981

6 5 9

7 4 4

3 8 7

2. 8 1 3 6

5 3 6 4

3 3 4 8

4 9 6 9

3. 5 2 4 8 5

9 6 7 3 4

27374

79726

4. 6 1 6 8 4 2

2 15731

7 8 4 4 9 7

4 9 6 8 5 3

Check your answers. Record your score. Perfect score: 16

My score:

# **Problems**

Solve each problem.	
1. There are 34 desks in Mrs. Cosgrove's room. The desks are to be arranged in rows. How many rows of desks each can be formed? How many desks will not be in a 5-desk row?	5
rows of 5 desks each can be formed.	
desks will not be in a 5-desk row.	
2. A certain type of rustic fence comes in 6-foot sections. How many sections will it take to put a fence along the back of a lot which is 78 feet wide?	
It would take sections.	
3. Bert has 134 pop bottles. How many 6-bottle car tons can he fill? How many bottles will be left?	3.
cartons can be filled.	
bottles will be left.	
4. There are 2,432 people who work in the offices of the first 8 floors of an office building. The same number of people work on each floor. How many people work on each floor?	r
people work on each floor.	
5. In 7 days 7,168 people went to a theater. The same number of people went each day. How many people went each day?	
people went each day.	
6. At the steel mill there are 21,764 employees. There are the same number of employees on each of the shifts. How many employees are on each shift?	
There are employees on each shift	t.
Check your answers. Record your score. Per	fect score: 8 My score:

### Measurement

Complete the following.

1. 4 lb. =\_\_\_\_\_oz.

 $3 T. = ____ lb.$ 

2. 5 min. = \_\_\_\_\_ sec.

 $3 \text{ hr.} = \underline{\qquad} \text{ min.}$ 

 $\boldsymbol{b}$ 

3. 2 da. = \_\_\_\_\_ hr.

 $6 \text{ ft.} = \underline{\hspace{1cm}} \text{in.}$ 

4.  $3 \text{ vd.} = \underline{\hspace{1cm}}$  in.

5 yd. =\_\_\_\_\_ft.

5.  $8 \text{ ft.} = \underline{\hspace{1cm}} \text{in.}$ 

 $12 \, \text{ft.} = \underline{\hspace{1cm}} \, \text{yd.}$ 

6.  $4 c. = ____ pt.$ 

 $6 \text{ pt.} = \underline{\phantom{0}} \text{c.}$ 

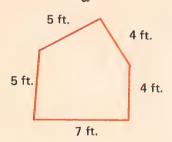
7. 8 pt. = \_\_\_\_ qt.

 $5 \text{ qt.} = \underline{\qquad} \text{pt.}$ 

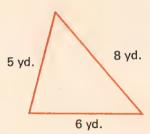
8. 12 qt. = \_\_\_\_\_ gal. 18 gal. = \_\_\_\_ qt.

Find the perimeter of each figure below.

9.



b



 $\boldsymbol{c}$ 

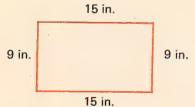
65 in. 56 in. 72 in. 48 in.

feet

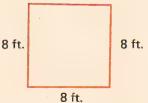
\_\_\_ yards

inches

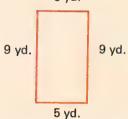
10.



8 ft.



5 yd.



\_\_\_ inches

\_\_\_\_ feet

\_\_\_\_\_ yards

Check your answers. Record your score.

Perfect score: 22

My score:

#### Problems

Solve each problem. 1. A shipment of merchandise weighs 8 tons. What is 1. the weight of the shipment in pounds? The weight is \_\_\_\_\_ pounds. 2. Jerry's baby brother weighed 6 pounds at birth. 2. What was the baby's weight in ounces? The baby's weight was \_\_\_\_\_ ounces. 3. It rained for 2 days without stopping. How many 3. hours did it rain without stopping? It rained \_\_\_\_\_ hours without stopping. 4. It took Richard 5 minutes to run around the park. How many seconds did it take him to run around the park? It took him \_\_\_\_\_seconds. 5. Malcolm has a rope which is 3 yards long. What is the length of the rope in feet? The rope is \_\_\_\_\_\_feet long. 6. In problem 5, what is the length of the rope in 6. inches? The rope is \_\_\_\_\_ inches long. 7. A football field is 120 yards long. What is the length 7. of the field in feet? The field is \_\_\_\_\_\_ feet long. 8. The Walsh family drank 24 quarts of milk last 8. week. How many gallons of milk was this? It was \_\_\_\_\_ gallons of milk. 9. At the picnic there were 32 quarts of lemonade 9. served. How many pints of lemonade was this? It was \_\_\_\_\_ pints of lemonade.

Check your answers. Record your score.

Perfect score: 9 My score: \_\_\_\_

Problems	
Solve each problem.	
1. The Doughnut Shop sold 1,427 dozen doughnuts yesterday. There are 12 doughnuts in a dozen. How many doughnuts did they sell?	1.
They sold doughnuts.	
2. The weights of 5 linemen on the Bears football team are as follows: 235 pounds; 255 pounds; 248 pounds; 262 pounds; and 250 pounds. What is the total weight of these players?	2.
The total weight is pounds.	
3. Each bundle of shingles will cover 9 square feet of roof. How many bundles of shingles would be needed to cover 756 square feet of roof?	3.
bundles of shingles would be needed.	
4. The Empire State Building is 1,250 feet high and the Chrysler Building is 1,046 feet high. How much taller is the Empire State Building than the Chrysler Building?	4.
The Empire State Building is feet taller.	
5. It is 36 feet along both the front and back of a house and 28 feet along each of the other two sides. What is the distance around the house?	5.
It is feet around the house.	
6. There are 738 pupils at Alice's school. There is the same number in each of the 6 grades at the school. How many pupils are in each grade?	6.
There are pupils in each grade.	
7. In a certain city there are 8,985 policemen and 596 firemen. How many more policemen than firemen are there?	7.
There are more policemen.	
Check your answers. Record your score. Perfect	t score: 7 My score:

NAME \_

### TEST—Review

Complete the following as indicated.

 $\boldsymbol{b}$ 

 $\boldsymbol{c}$ 

d

Complete the following.

$$\boldsymbol{b}$$

$$4 \text{ lb.} = \underline{\hspace{1cm}} \text{oz.}$$

6. 
$$3 \text{ yd.} = \underline{\hspace{1cm}}$$
 in.

$$12 \, \text{ft.} = \underline{\hspace{1cm}} \, \text{yd.}$$

Write a Roman numeral for each of the following.

Check your answers. Record your score.

Perfect score: 25 My score: \_

# Answers for SPECTRUM MATHEMATICS (Orange Book)

Page	1 1.	4;3;	7	2.	4;5;	9	3. 2	2;3;	5	Page	9	a ·	b	c	d	e	f
Page		a 8 8 5 16 14 15	b 7 9 7 13 14 13	c 9 5 4 13 11 14 12	d 9 6 9 11 11 12	$e \\ 7 \\ 7 \\ 9 \\ 13 \\ 10 \\ 17$	f 8 8 5 10 12 11 12	g 9 9 6 13 12 12 16	h 10 8 7 17 13 11 18	Page	1. 2. 3. 4. 5. 6. 7.	2 5 10 11 29 2 65	20 50 20 10 33 43 64	3 2 40 28 32 40 64	30 20 50 12 23 55 71	$\begin{array}{c} 3 \\ 4 \\ 20 \\ 10 \\ 4 \\ 15 \\ 27 \end{array}$	30 40 40 12 35 46 28
Page	3 1. 2. 3. 4. 5. 6. 7.	a 1 2 7 6 7 5	b 2 1 8 3 9 6 6	c 3 7 9 8 8 7 2	d 1 6 7 6 6 6 9 c	e 8 4 5 8 3 9 5 d	f 4 0 1 8 8 7 5	g 1 3 9 7 4 9 8	h 6 3 2 4 4 7 6	Page	2.	a 29 36 60 95 96 62 40 10 34	53; 16 b 29 83 70 67 88 28 10 43 65	c 58 34 80 83 98 41 50 48 53	28; 21 d 59 97 60 78 87 57 50 26 21	e 49 35 50 96 68 73 20 7	f 29 58 80 49 99
Page	1. 2. 3. 4. 5. 6. 7. 8.	49 47 80 75 98 21 40 43 8	78 57 80 64 36 51 20 3 66		69 49 90 27 64 412 20 34 78	29 37 70 45 92 21 40 55 6	4' 29 90 66 83 42 30 75	7 9 0 6 3 3 2 0 0 9	78 48 70 85 85 72 50 44 15	Page	12 1. 2. 3. 4. 5. 6. 7. 8. 9.	a 8 35 92 113 19 15 62 288 509	b 12 51 106 212 74 39 742 455 819	c 20 74 116 186 59 26 341 549 590	d 15 70 251 196 36 59 892 785 892	e 24 55 337 181 88 47 597 699 105	f 17 56 413 183 67 58 781 379 387
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Page	7 1. 2. 3. 4. 5. 6. 7.	a 6 9 90 58 36 94 99	b 60 90 80 89 97 86 89	8 6 7 9	c 7 7 80 87 7 7	d 70 70 80 87 98 98	e 9 80 68 95 85	) ) ) 3	f 90 90 60 86 84 95 98	Page	1. 2. 3. 4. 5. 6. 7.	a 26 31 60 71 83 73	b 22 71 93 41 86 57 91	c 41 65 81 41 91 74	d 31 42 92 50 91 77 65	e 40 42 84 43 73 43 87	f 61 73 92 72 91 46 80
Page	8 1. 2.	14; 15 42; 46			3. 31; 4. 43;			5.	38	Page	16 1. 2.	16; 9 8; 15		3. 42 4. 36			

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	2.	128	138	119	176	159	139		5.	76	878	7868	888	7 7838	3 9928
	3.	101	131	160	150	132	131		6.	423	329	794	149		
	4.	188	206	178	248	139	149		7.	4219 3225	5452	$5851 \\ 2381$	7139 275		
	5. 6.	180 100	222 203	$\begin{array}{c} 225 \\ 220 \end{array}$	$\begin{array}{c} 218 \\ 201 \end{array}$	$\begin{array}{c} 144 \\ 265 \end{array}$	$\begin{array}{c} 164 \\ 135 \end{array}$		8. 9.		4249 32415				1 75708
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	5.	517	147	408	106	736	108 309	J	1.	add; 80					590 lbs.
	6. 7.	509 309	659 718	869 618	$\begin{array}{c} 739 \\ 309 \end{array}$	$709 \\ 529$	845		2.	subtrac		lbs. 5	. subt	ract; 9	08 mi.
D		000	110	010	000	020	010		3.	add; 9	49 lbs.				
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	1.	93	51	51	87	71	55		4.	2239	3081		321	4018	5588
	2.	331	390	771	391	691	534		<b>5.</b>	2008	5471	. 49	922	3286	3084
	3.	887	287	529	578	279	785		6.	9459	9181	. 88	311	485	8779
	4.	99	809	288	669	188 663	$\begin{array}{c} 788 \\ 773 \end{array}$	Page	30						
	5. 6.	578 387	78 268	601 89	239 248	759	268	Lugo	1.	1493;	198; 12	295	3. 1	1387	5. 3166
	7.	258	377	158	89	175	182		2.	7376;	5924;1	L3300	4. 3	3342	
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### ANSWERS FOR SPECTRUM MATHEMATICS (Orange Book)

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	3. 4. 5. 6. 7. 8. 9.	66 85 459 800 945 2800 5810		86 90 568 800 975 3696 966	69 92 469 484 968 3591 5384	88 84 288 248 688 2472 2345	68 96 415 936 849 880 3476		5. 6. 7. 8. 9.	a 428 585 3648 3248 6587	b 69: 91: 305: 429: 386:	7 0 1 1		d 896 968 940 6039 5832	e 690 2196 959 3440 3052
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	1. 2. 3. 4. 5.	56 84 159 368 657	92 91 305 146 170	75 87 148 455 354	96 96 486 427 336	95 92 497 216 201	74 84 248 488 456		1. 2. 3. 4.	39 68 882 759	390 340 1056 946	86 408 869 616	860 96 961 736	640 640 297 294	690 736 384 1034
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	3. 4. 5.	963 728 936 5922	846 816 952 4302	$848 \\ 955$	698 3648 2891 5816	981 5688 3368 2970		Page	52 1.	792 660	3. 67 4. 43	5	5. 432 6. 572	7	7. 2200 8. 33 <b>6</b>

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1.	480 960 840 1120 4500 5880 882 736 924 299 759 528	<b>4.</b> 120736 166288 311112 280116 <b>5.</b> 619974 490230 775200 360122
2. 3.	882 736 924 299 759 528 1075 1479 850 896 1008 1248	
4.	3834 3096 2016 3444 4233 3128	Page 64 1. 187500 3. 567360 5. 536854 7. 51175
5.	4964 2436 4214 3478 2976 1652	1. 187500 3. 567360 5. 536854 7. 51175 2. 51175 4. 37520 6. 16272 8. 106250
Page 54	825 3. 616 5. 1584 7. 224	·
1. 2.	825 3. 616 5. 1584 7. 224 2400 4. 720 6. 1050	Page 65 $a$ $b$ $c$ $d$
Page 55		1. 6824 9381 40505 9684
ruge oo	a $b$ $c$ $d$ $e$ $f$	2.     7842     32688     87309     56488       3.     7835     28441     28632     52554
1.	1845 18450 2912 29120 33300 39150 528 2640 3168 969 19380 20349	3.     7835     28441     28632     52554       4.     52923     337463     354322     280116
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4.	26568 21266 27027 71904 39508	Page 66 1. 30672 3. 2112 5. 6168 7. 17232
Page 56		1. 30672 3. 2112 5. 6168 7. 17232 2. 132912 4. 14940 6. 74620
1.	3456 3. 3000 5. 4620 7. 2025	Page 67
2.	<b>27</b> 00 <b>4.</b> 9425 <b>6.</b> 6900 8. 2475	Page 67 $a$ $b$ $c$ $d$ $e$
Page 57	$egin{array}{cccccccccccccccccccccccccccccccccccc$	1. 639 63900 2268 226800 223200
1.	$egin{array}{cccccccccccccccccccccccccccccccccccc$	2. 68373 53297 88920 175299 108711 3. 368300 284256 419019 310392 560048
2.	1173 5655 3822 5518 1833 2808	
	a $b$ $c$ $d$ $e$	Page 68 1. 12500 3. 21000 5. 486750
3.	17328 34020 15696 32528 49868	2. 16875 4. 303315
4. 5.	24948 4004 39196 33375 37492 3537 77771 15170 23040 6897	Page 69
Page 58		$a \qquad b \qquad c \qquad d$
1.	600 3. 192 5. 1200 7. 490	1.     43239     17303     55296     46008       2.     102024     68526     94284     459774
2.	1500 <b>4.</b> 4320 <b>6.</b> 5248 <b>8.</b> 1903	2.     102024     68526     94284     459774       3.     166608     198008     83916     117594
Page 59	1	4. 487153 466446 176175 332898
1.	$egin{array}{cccccccccccccccccccccccccccccccccccc$	<b>5.</b> 455300 459 <b>6</b> 08 374250 388994
2.	3213 3024 1449 6408 2184	Page 70 1. 235248 3. 249600 5. 103950 7. 352225
3.	6594 3936 6946 7905 24887 8424 28044 11544 23433 12267	1. 235248 3. 249600 5. 103950 7. 352225 2. 62720 4. 96200 6. 12096
4. 5.		Page 71
Page 60		a $b$ $c$ $d$
	a $b$ $c$ $d$	1. 8084 6642 38889 54064
1. 2.	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	2.     23506     29694     87507     118598       3.     373744     174988     386456     439482
3.	256184 622457 363216 364650	4. 68688 30861 116202 111088
4.	96300 226800 99840 89424 385776 327096 594864 383250	<b>5.</b> 97528 403004 298944 547566
5. Dogg 61	385776 327096 594864 383250	Page 72
Page 61	a  b  c  d  e  f	$egin{array}{cccccccccccccccccccccccccccccccccccc$
1.	6 6000 8 8000 9 9000	2. 79¢ \$1.07 85¢ \$12.58 \$88.33
2.	21 21000 40 40000 72 72000	3. 52¢ \$ .59 \$3.62 \$ 3.78 \$ 8.95
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3. 4.	6824 8072 5355 8193 32084 7343 40856 9684 8755 48609	5. 45 c
5.	34026 48663 33306 35170 54016	<b>6.</b> 91 120 210
Page 62		7. XLVII LXIX
1.	45000 3. 34000 5. 5235 7. 45675	8. XCVI CXIV CCCLV
2.	17500 4. 4268 6. 8136	Page 73 $a$ $b$ $c$ $d$
Page 63	$egin{array}{cccccccccccccccccccccccccccccccccccc$	1. 12° 26° 40° 81°
1.	8000 80000 15000 150000	2. 75° 63° 104° 9°
2.	80000 90000 350000 540000	3. 67° 103° 78° 47°

## ANSWERS FOR SPECTRUM MATHEMATICS (Orange Book)

Page	· 74					Page	82											
	1. 2.	$\frac{24}{78}$	3. 180 4. 64	5. 2326 6. 20	<b>7.</b> 90		1.	$rac{a}{1}$	$rac{b}{4}$	c $4$	$rac{d}{2}$	e 7	6.	<i>a</i> 9	$\frac{b}{3}$	$\frac{c}{7}$	$rac{d}{1}$	e 5
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	1.	$a \\ 5 \phi$	b $$.25$	$\frac{c}{83\phi}$	$d \\ 500 \phi$		4. 5.	7 8	9 2 3 6	6	9	0 2	9.	6 9	1 7	8 3	4 0	1 6 2 5
	2. 3.	$\begin{array}{c} \$ \ .10 \\ 25 \phi \end{array}$	\$.50 \$.75	$4\phi$ $29\phi$	$\$1.79$ $347\phi$				ь	U	4	Z	10.	9	7	ð	U	Э
	4.	\$ .50	\$.10	$298_{\phi}$	\$1.35	Page	83	a		b		c		d		e		f
	5. 6.	85 c $$1.00$	\$.95 \$.05	$375\phi$ $149\phi$	649¢ \$2.19		1. 2.	5 7		$\frac{3}{7}$		7 6		5 5		6 9		7
	7. 8.	408¢ \$7.63	25 3				3. 4.	8	•	4 1		6		4 8 9		5		7 3 7 2 9 9
	9. 10.	$309 \phi$ \$6.19	5 9				5. 6.	8		0 9		4 8		9		3 5		9
	11. 12.	579¢ \$18.75	4; 19 8; 69				7.	4		3		6		1		2		2
Page		7				Page	84					_						
	1.	$a \\ 67 \phi$	$\begin{array}{ccc} b & c \\ 72 \phi & \$1.19 \end{array}$	\$13.68	e $$108.97$		1. 2.	9; 6;	9;3 3;2		4	. 5						
	2.	$56\phi$	29¢ \$ .74	\$ 1.78	\$ 28.79	Page	85											
	3. 4.	77c	$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	\$14.71 \$ 3.38	\$ 44.41 \$ 30.89		1.	$_{6}^{a}$	1	b 3	5.	$\frac{a}{9}$	2	<i>b</i>	$\frac{c}{5}$	į	d	e 1
	5. 6.	$155\phi$ $159\phi$	$166\phi$ \$2.37 $58\phi$ \$1.22	\$10.68 \$ 4.52	\$204.24 \$ 32.88		2. 3.	7 8	7	7	6. 7.	7	7	7	6	(	)	$egin{array}{c} e \\ 1 \\ 3 \\ 4 \end{array}$
Page	77						4.	9	ç	)	8.	$\frac{3}{4}$	8	3	0	3	3	9
	1.	$a \\ 84 \phi$	b c 65¢\$ .78	\$ <b>6</b> .88	e \$ 48.69	Page	86	0.4				۰.			_		- 0	
	2. 3.	186¢ 3	65¢ \$ .78 364¢ \$ 3.48 989¢ \$ 17.68	\$ 6.88 \$ 9.88 \$ 161.64	\$ 77.37 \$1050.00		1. 2.	24 28	; 6; ; 7;	4		3. 5 4. 8	3	5. 6.	7 5		7. 8	,
	4.		088¢ \$126.48	\$1359.93	\$3342.24	Page	87											
Page	78 1.	$72\phi$	3. 21¢ 5. \$	118.75	7. \$79.56		1.	<i>a</i> 6	6		5.	$a \\ 1$	2		$rac{c}{7}$	ě	<i>d</i> 3	$\frac{e}{4}$
	2.	$92\phi$	4. \$9.52 6. \$	2.80	8. \$2.25		2. 3.	7 8	7	7	6. 7.	5	2 8 4	}	0 2	5	} [	4 6 5
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	4. 5.	90	$\begin{array}{c} 7 \\ 24 \end{array}$	$\begin{array}{c} 200 \\ 29 \end{array}$	35	Page	89											
	6. 7.	41 116	$\begin{array}{c} 59 \\ 160 \end{array}$	$\begin{array}{c} 64 \\ 200 \end{array}$	$\begin{array}{c} 99 \\ 245 \end{array}$		1.	$rac{a}{4}$	7	ь 7	3.	. a		<i>b</i> 8				
	8. 9.	VIII XXVI	XII XXIX	$egin{array}{c}  ext{XIV} \  ext{XXXV} \end{array}$	7		2.	8	7	7	4.	. 6		0				
	10. 11.	XLIV XCVI	LXI CXXXV	LXXI	V		5.	a 9	<i>b</i>	c 9	$\frac{d}{2}$	$rac{e}{7}$	9.	$\frac{a}{1}$	<i>b</i>	<i>c</i>	$rac{d}{1}$	e .
Page		110 / 1		00011			6.	9 3 8 6	8 5 3 2	9	2 4 6 2	5	10. 11.	0	94	3 2 5	0	2 6
	1. 2.	\$14.12 \$24.75	3. 24 5. 4. \$35.80 6.	21 \$637 44	7. \$39.93 8. \$2.77		7. 8.	6	2	$\frac{0}{4}$	2	3	12.	6	1 5	4	0	1 8
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		$a$ 17 $^{\circ}$	b c 34° 73°	$_{49^{\circ}}^{d}$	e		1. 2.	9 5		3. 7 4. 8	3	(	5. 9 5. 9		7. 6 8. 8	3		
	1. 2.	89¢ \$	.64 \$72.52	31¢	\$ 4.94	Page	91											
	3.	87¢ \$2	$egin{array}{cccc} 2.76 & \$11.12 \ b & c \end{array}$	\$56.28	\$77.76	0	1.	<i>a</i>	<b>b</b>	c	d	e	G	<i>a</i> 5	$b_{\Lambda}$	<i>c</i> 5	$\frac{d}{\Lambda}$	e
	4.		41 66				2.	2	3	0 1 6 6	8 9 2 1	9	6. 7. 8. 9.	5 7 3 6	7	2	1	3
	6.	XXIX	XLIV	LXVII			3. 4.	2 6 7	8 5 6	6	1	1 4	9.		4 7 4 3 0	5 2 8 9	4 1 7 5 5	6 3 9 0 8
	7.	XCVII	CXXVI	CCXX	AV		5.	7	b	0	3	7	10.	7	U	9	b	8

Page	92								a	b	c	d	e
		$\boldsymbol{a}$	b	c	d	e		3.	52	41	73	57	84
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# ANSWERS FOR SPECTRUM MATHEMATICS (Orange Book)

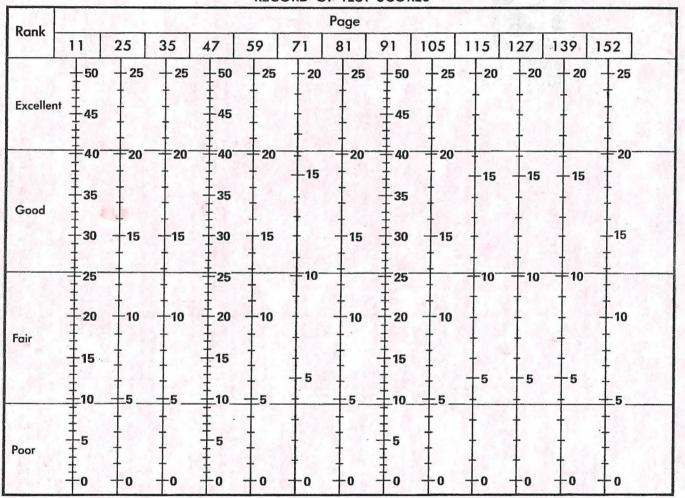
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The sequence of the six books in the SPECTRUM MATHEMATICS SERIES is Red, Orange, Yellow, Green, Blue, and Purple.

For each unit there is a PRE-TEST, instructional material, written exercises, verbal problems, and a TEST. The score of each TEST can be recorded on the Record of Test Scores.

#### RECORD OF TEST SCORES



To record the score you receive on a TEST:

- (1) find the vertical scale below the page number of that TEST,
- (2) on that vertical scale, draw a at the mark which represents your score. For example, if your score for the TEST on page 11 is "My score: 35," draw a at the 35-mark on the first vertical scale. A score of 35 would show that your rank on that test is "Good." You can check your progress from one test to the next by connecting the dots with a line segment.

